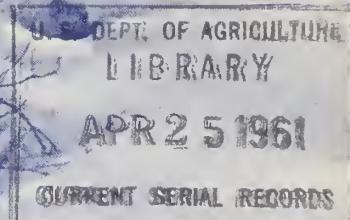


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FEDERAL - STATE - PRIVATE
COOPERATIVE
**SNOW SURVEY and WATER SUPPLY FORECASTS
for
NEVADA**

UNITED STATES DEPARTMENT of AGRICULTURE...SOIL CONSERVATION SERVICE,
and
NEVADA DEPARTMENT of CONSERVATION and NATURAL RESOURCES
DIVISION of WATER RESOURCES

Data included in this report were obtained by the agencies named above
in cooperation with the Federal, State and private organizations listed
on the last page of this report.

AS OF
APR. 1, 1961

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Cooperative Snow Survey and Water Supply Forecast Reports:

The climate of the cultivated and populated areas of the West is characterized by relatively dry summer months. Such precipitation as occurs falls mostly in the winter and early spring months when it is of little immediate benefit to growing crops. Fortunately, most of this precipitation falls as mountain snow which stays on the ground for months, melting later to sustain streamflow during the period of greatest demand during late spring and summer. Thus, nature provides in mountain snow an imposing water storage facility.

The amount of water stored in mountain snow varies from place to place as well as from year to year and accordingly, so does the runoff of the streams. The best seasonal management of variable western water supplies results from fore-knowledge of the runoff.

A snow survey consists of a series of about ten samples taken with specially designed snow sampling equipment along a permanently marked line, about 1000 feet in length, called a snow course. The use of snow sampling equipment provides snow depth and water equivalent values for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.

Snow surveys are made monthly or semi-monthly beginning in January or February and continue through the snow season until April, May or June. Currently more than 1400 western snow courses are measured each year. These measurements furnish the key data for water supply forecasts.

By relating snow survey measurements taken over a period of years to spring-summer runoff during the same period, relationships have been developed which make it possible to forecast seasonal runoff several months in advance of occurrence. In order to make a forecast, once a forecast relationship has been developed, the maximum snow water content at previously selected key snow courses is usually entered in the forecast relationship. More accurate forecasts are often obtained when other factors such as soil moisture, base flow and spring precipitation are considered and included in the forecast relationships.

Listed below are the Federal-State-Private Cooperative Snow Survey and Water Supply Forecast reports available for the West which contain detailed information on snow survey measurements, streamflow forecasts, reservoir storage, soil moisture and other guide data to water management and conservation decisions.

PUBLISHED BY SOIL CONSERVATION SERVICE

| <u>REPORTS</u> | <u>ISSUED</u> | <u>LOCATION</u> | <u>COOPERATING WITH</u> |
|--|---------------------------------|------------------------|--|
| RIVER BASINS | | | |
| COLORADO AND STATE OF UTAH | MONTHLY (JAN.-MAY) | SALT LAKE CITY, UTAH | UTAH STATE ENGINEER AND OTHER AGENCIES |
| COLUMBIA | MONTHLY (JAN.-MAY) | BOISE, IDAHO | IDAHO STATE RECLAMATION ENGINEER |
| UPPER MISSOURI AND STATE OF MONTANA | MONTHLY (FEB.-MAY) | BOZEMAN, MONTANA | MONT. AGR. EXP. STATION |
| WEST-WIOE | OCT. 1, APR. 1, MAY 1 | PORTLAND, OREGON | ALL COOPERATORS |
| STATES | | | |
| ALASKA | MONTHLY (MAR.-MAY) | PALMER, ALASKA | ALASKA S.C.D. |
| ARIZONA | SEMI-MONTHLY (JAN. 15 - APR. 1) | PHOENIX, ARIZONA | SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION |
| COLORADO AND NEW MEXICO | MONTHLY (FEB.-MAY) | FORT COLLINS, COLORADO | COLO. AGR. EXP. STATION COLO. STATE ENGINEER N. MEX. STATE ENGINEER |
| IDAHO | MONTHLY (FEB.-MAY) | BOISE, IDAHO | IDAHO STATE RECLAMATION ENGINEER |
| NEVADA | MONTHLY (FEB.-APR.) | RENO, NEVADA | NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES |
| OREGON | MONTHLY (JAN.-MAY) | PORTLAND, OREGON | ORE. AGR. EXP. STATION OREGON STATE ENGINEER |
| WASHINGTON | MONTHLY (FEB.-MAY) | SPOKANE, WASHINGTON | WN. STATE DEPT. OF CONSERVATION |
| WYOMING | MONTHLY (FEB.-JUNE) | CASPER, WYOMING | WYOMING STATE ENGINEER |
| Copies of these various reports may be secured from: Head, Water Supply Forecasting Section Soil Conservation Service 209 S. W. Fifth Ave., Portland 4, Oregon | | | |

PUBLISHED BY OTHER AGENCIES

| <u>REPORTS</u> | <u>ISSUED</u> | <u>AGENCY</u> |
|------------------|---------------------|---|
| BRITISH COLUMBIA | MONTHLY (FEB.-JUNE) | COMPTROLLER, WATER RIGHTS BR., DEPT. OF LANDS AND FORESTS, PARLIAMENT BLDG., VICTORIA, B.C., CANADA |
| CALIFORNIA | MONTHLY (FEB.-MAY) | CALIF. DEPT. OF WATER RESOURCES, SACRAMENTO, CALIF. |

FEDERAL - STATE - PRIVATE
COOPERATIVE

**SNOW SURVEY and WATER SUPPLY FORECASTS
for
NEVADA**

Report prepared by

MANES BARTON

and

ROY E. MALSOR, JR.

SOIL CONSERVATION SERVICE
1479 WELLS AVENUE.....RENO, NEVADA

APRIL 8, 1961

Issued by

CHARLES W. CLEARY, JR.

STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
RENO, NEVADA

HUGH A. SHAMBERGER

DIRECTOR
DEPARTMENT OF CONSERVATION AND
NATURAL RESOURCES
CARSON CITY, NEVADA

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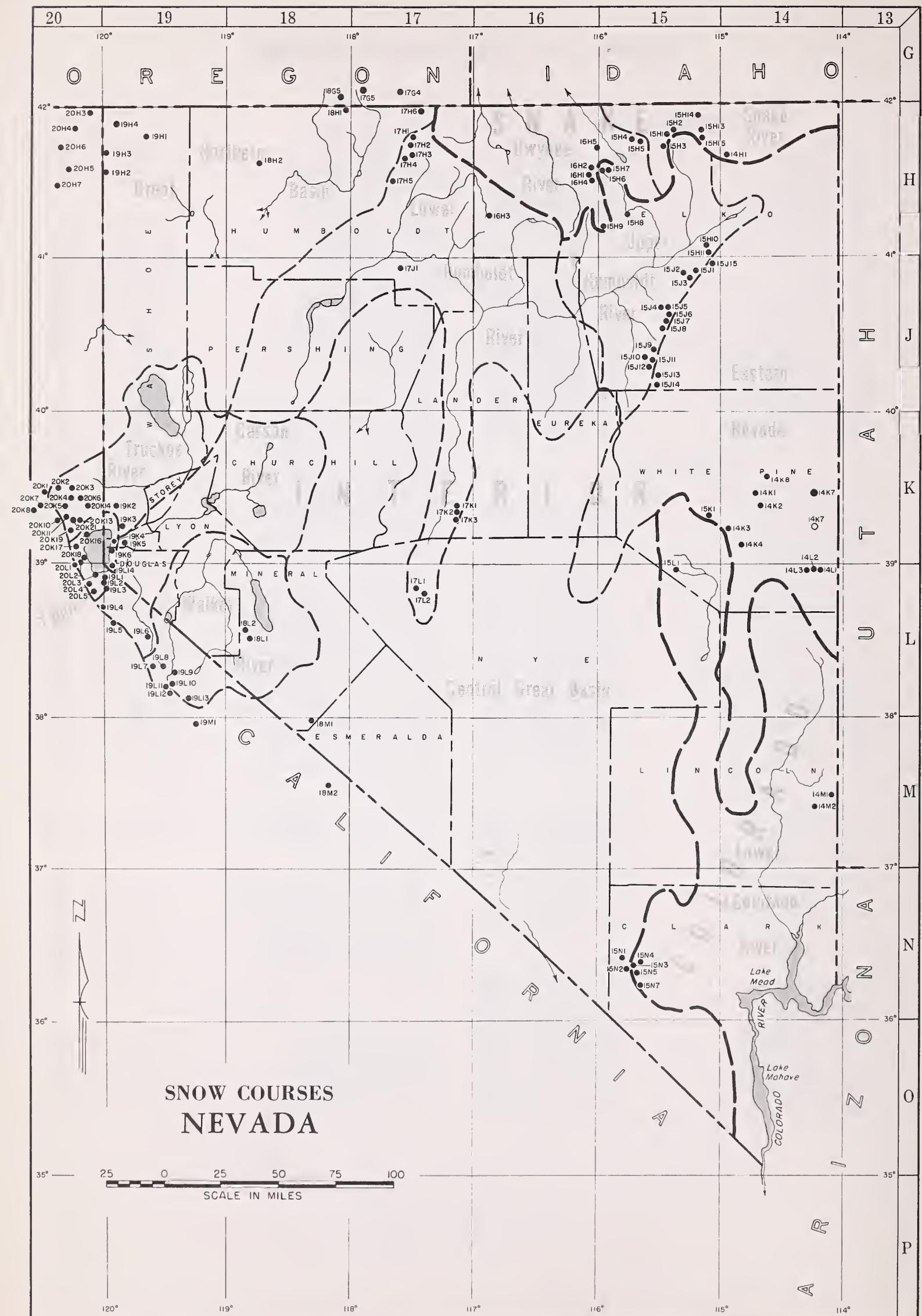
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| NUMBER | NAME | SEC. | TWP. | RGE. | ELEV. | NUMBER | NAME | SEC. | TWP. | RGE. | ELEV. | | | | | | |
|-----------------------------|---------------------------|------|------|------|-------|-----------------------------|----------------------------|------|------|------|-------|--|--|--|--|--|--|
| SNAKE RIVER BASIN | | | | | | | | | | | | | | | | | |
| SNAKE RIVER | | | | | | | | | | | | | | | | | |
| 15H 1 | BEAR CREEK | 31 | 46N | 58E | 7800 | 18M 2 | CAMPITO MTN | 19 | 5S | 35E | 10200 | | | | | | |
| 15H 4* | BIG BENO | 30 | 45N | 56E | 6700 | 15N 2 | CLARK CANYON | 8 | 19S | 56E | 9000 | | | | | | |
| 15H 2 | FOX CREEK | 33 | 46N | 58E | 6800 | 18G 6* | DENIO CREEK A.M. (OREG.) | 14 | 41S | 34E | 6000 | | | | | | |
| 15H13 | GOAT CREEK | 31 | 46N | 60E | 8800 | 18M 1 | MONTGOMERY PASS | 4 | 1N | 33E | 7100 | | | | | | |
| 15H 5* | GOLO CREEK | 31 | 45N | 56E | 6600 | 15N 1 | TROUGH SPRINGS | 23 | 18S | 55E | 8500 | | | | | | |
| 15H15 | HUMMINGBIRD SPRINGS | 6 | 45N | 60E | 8945 | NORTHERN GREAT BASIN | | | | | | | | | | | |
| 14H 1 | JAKES CREEK | 6 | 42N | 62E | 7000 | 19H 1 | BALO MOUNTAIN | 17 | 45N | 21E | 6720 | | | | | | |
| 15H14 | POLE CREEK RANGER STATION | 13 | 46N | 59E | 8330 | 20H 5 | BARBER CREEK | 23 | 39N | 16E | 6500 | | | | | | |
| 15H 3 | 76 CREEK | 6 | 44N | 58E | 7100 | 20H 6 | CEOAR PASS | 12 | 43N | 14E | 7100 | | | | | | |
| OWYHEE RIVER | | | | | | 18H 1 | DISASTER PEAK | 8 | 47N | 34E | 6500 | | | | | | |
| 15H 4 | BIG BENO | 30 | 45N | 56E | 6700 | 20H 3 | DISMAL SWAMP A.M. | 31 | 48N | 22E | 7000 | | | | | | |
| 15H 7* | FRY CANYON | 31 | 43N | 54E | 6700 | 20H 7 | EAGLE PEAK | 35 | 40N | 15E | 8300 | | | | | | |
| 15H 5 | GOLO CREEK | 31 | 45N | 56E | 6600 | 19H 3 | 49-MTN | 7 | 42N | 19E | 6000 | | | | | | |
| 17H 4* | GRANITE PEAK | 22 | 44N | 39E | 7800 | 19H 2 | HAYS CANYON | 1 | 39N | 18E | 6400 | | | | | | |
| 16H 4 | JACKS PEAK | 28 | 42N | 53E | 8420 | 18H 2 | LEONARO CREEK | 13 | 42N | 28E | 5900 | | | | | | |
| 16H 5 | LAUREL DRAW | 20 | 45N | 53E | 6700 | 19H 4 | MOSQUITO LAKE A.M. | 8 | 45N | 19E | 6000 | | | | | | |
| 17G 4 | LOUSE CANYON A.M. (OREG.) | 27 | 40S | 44E | 6440 | 17G 5 | OREGON CANYON A.M. (OREG.) | 9 | 40S | 40E | 7240 | | | | | | |
| 17H 2* | LOWER BUCKSKIN | 25 | 45N | 39E | 6700 | 17H 6 | QUINN RIDGE A.M. | 9 | 47N | 41E | 6300 | | | | | | |
| 16H 1 | LOWER JACK CREEK | 18 | 42N | 53E | 6800 | 20H 4 | RESERVATION CREEK | 12 | 46N | 15E | 5900 | | | | | | |
| 17H 3* | MARTIN CREEK | 18 | 44N | 40E | 6700 | 18G 5* | TROUT CREEK A.M. (OREG.) | 10 | 41S | 38E | 7800 | | | | | | |
| 15H 6* | RODEO FLAT | 36 | 43N | 53E | 6800 | LAKE TAHOE | | | | | | | | | | | |
| 15H 9 | TAYLOR CANYON | 35 | 39N | 53E | 6200 | 19L14 | DAGGETTS PASS | 19 | 13N | 19E | 7350 | | | | | | |
| 15H 8* | TREMewan RANCH | 9 | 39N | 55E | 5700 | 20L 5 | (CAL.) ECHO SUMMIT | 6 | 11N | 18E | 7500 | | | | | | |
| 17H 1* | UPPER BUCKSKIN | 11 | 45N | 39E | 7200 | 19K 2 | (CAL.) FREEL BENCH | 36 | 12N | 18E | 7300 | | | | | | |
| 16H 2 | UPPER JACK CREEK | 9 | 42N | 53E | 7250 | 19K 6 | GLENBROOK #2 | 13 | 14N | 18E | 6900 | | | | | | |
| INTERIOR | | | | | | | | | | | | | | | | | |
| UPPER HUMBOLDT RIVER | | | | | | | | | | | | | | | | | |
| 15H 1* | BEAR CREEK | 31 | 46N | 58E | 7800 | 19L 3 | (CAL.) HAGANS MEAOOW | 36 | 12N | 18E | 8000 | | | | | | |
| 15H 4* | BIG BENO | 30 | 45N | 56E | 6700 | 20L 4 | (CAL.) LAKE LUCILLE | 28 | 12N | 17E | 8400 | | | | | | |
| 15J12 | CORRAL CANYON | 27 | 28N | 57E | 8500 | 19K 4 | MARLETTE LAKE | 13 | 15N | 18E | 8000 | | | | | | |
| 15J 1 | DORSEY BASIN | 28 | 35N | 60E | 8100 | 19K 2* | MT. ROSE | 7 | 17N | 19E | 9000 | | | | | | |
| 15J 3 | DRY CREEK | 5 | 34N | 60E | 6500 | 20L 3 | (CAL.) RICHARDSONS #2 | 6 | 12N | 18E | 6500 | | | | | | |
| 15H 2* | FOX CREEK | 33 | 46N | 58E | 6800 | 20L 1 | (CAL.) RUBICON #1 | 6 | 13N | 17E | 8100 | | | | | | |
| 15H 7 | FRY CANYON | 31 | 43N | 54E | 6700 | 20L 2 | (CAL.) RUBICON #2 | 6 | 13N | 17E | 7500 | | | | | | |
| 15H 5* | GOLO CREEK | 31 | 45N | 56E | 6600 | 20K18 | (CAL.) RUBICON #3 | 32 | 14N | 17E | 6700 | | | | | | |
| 15J 9 | GREEN MOUNTAIN | 23 | 29N | 57E | 8000 | 20K16 | (CAL.) TAHOE CITY | 6 | 15N | 17E | 6250 | | | | | | |
| 15J10 | HARRISON PASS #1 | 9 | 28N | 57E | 6600 | 19L 1 | (CAL.) UPPER TRUCKEE | 21 | 12N | 18E | 6400 | | | | | | |
| 15J11 | HARRISON PASS #2 | 16 | 28N | 57E | 7400 | 20K17 | (CAL.) WARD CREEK | 21 | 15N | 16E | 7000 | | | | | | |
| 15J 4 | LAMOILLE #1 | 15 | 32N | 58E | 7100 | TRUCKEE RIVER | | | | | | | | | | | |
| 15J 5 | LAMOILLE #2 | 14 | 32N | 58E | 7300 | 20K14 | (CAL.) BOCA #2 | 28 | 18N | 17E | 5900 | | | | | | |
| 15J 6 | LAMOILLE #3 | 24 | 32N | 58E | 7700 | 20K11 | (CAL.) DONNER LAKE #1 | 14 | 17N | 15E | 5950 | | | | | | |
| 15J 7 | LAMOILLE #4 | 19 | 32N | 59E | 8000 | 20K 21 | (CAL.) DONNER PARK #2 | 3 | 16N | 16E | 6000 | | | | | | |
| 15J 8 | LAMOILLE #5 | 31 | 32N | 59E | 8700 | 20K10* | (CAL.) DONNER SUMMIT | 25 | 17N | 14E | 6900 | | | | | | |
| 16H 1* | LOWER JACK CREEK | 18 | 42N | 53E | 6800 | 20K 7* | (CAL.) FOROYCE LAKE | 34 | 18N | 13E | 6500 | | | | | | |
| 15H10 | LOWER TROUT CREEK | 28 | 37N | 61E | 6900 | 20K 8* | (CAL.) FURNACE FLAT | 10 | 17N | 13E | 6600 | | | | | | |
| 15H 6 | ROOEO FLAT | 36 | 43N | 53E | 6800 | 20K 4 | (CAL.) INOEPENOENCE CAMP | 34 | 19N | 15E | 7000 | | | | | | |
| 15J 2 | RYAN RANCH | 1 | 34N | 59E | 5800 | 20K 3 | (CAL.) INOEPENOENCE CREEK | 14 | 19N | 15E | 6500 | | | | | | |
| 15H 3* | 76 CREEK | 6 | 44N | 58E | 7100 | 20K 5 | (CAL.) INOEPENOENCE LAKE | 9 | 18N | 15E | 8450 | | | | | | |
| 15H 9* | TAYLOR CANYON | 35 | 39N | 53E | 6200 | 19K 3 | LITTLE VALLEY | 17 | 16N | 19E | 6300 | | | | | | |
| 15H 8 | TREMewan RANCH | 9 | 39N | 55E | 5700 | 19K 2 | MT. ROSE | 7 | 17N | 19E | 9000 | | | | | | |
| 16H 2* | UPPER JACK CREEK | 9 | 42N | 53E | 7250 | 20K 6 | (CAL.) SAGE HEN CREEK | 7 | 18N | 16E | 6500 | | | | | | |
| 15H11 | UPPER TROUT CREEK | 4 | 36N | 61E | 8500 | 20K19 | (CAL.) SQUAW VALLEY #2 | 6 | 15N | 16E | 7500 | | | | | | |
| LOWER HUMBOLDT RIVER | | | | | | | | | | | | | | | | | |
| 17K 1 | BIG CREEK CAMP GROUND | 10 | 17N | 43E | 6600 | 20K16* | (CAL.) TAHOE CITY | 6 | 15N | 17E | 6250 | | | | | | |
| 17K 2 | BIG CREEK MINE | 23 | 17N | 43E | 7600 | 20K13 | (CAL.) TRUCKEE #2 | 22 | 17N | 16E | 6400 | | | | | | |
| 17J 2 | GOLCONOA #2 | 22 | 35N | 39E | 6000 | 20K17* | (CAL.) WARD CREEK | 21 | 15N | 16E | 7000 | | | | | | |
| 17H 4 | GRANITE PEAK | 22 | 44N | 39E | 7800 | 20K 2 | (CAL.) WEBBER LAKE | 20 | 19N | 14E | 7000 | | | | | | |
| 17H 5 | LAMANCE CREEK | 13 | 42N | 38E | 6000 | 20K 1* | (CAL.) WEBBER PEAK | 30 | 19N | 14E | 8000 | | | | | | |
| 17H 2 | LOWER BUCKSKIN | 25 | 45N | 39E | 6700 | CARSON RIVER | | | | | | | | | | | |
| 17L 1 | LOWER CORRAL | 12 | 11N | 40E | 7500 | 19L 5 | (CAL.) BLUE LAKES | 30 | 9N | 19E | 8000 | | | | | | |
| 17H 3 | MARTIN CREEK | 18 | 44N | 40E | 6700 | 19K 5 | CLEAR CREEK | 6 | 14N | 19E | 7300 | | | | | | |
| 16H 3 | MIOAS | 18 | 39N | 46E | 7200 | 19L 6 | (CAL.) POISON FLAT | 25 | 8N | 21E | 7900 | | | | | | |
| 17K 3 | UPPER BIG CREEK | 26 | 17N | 43E | 8000 | 19L 4 | (CAL.) UPPER CARSON PASS | 22 | 10N | 18E | 8600 | | | | | | |
| 17H 1 | UPPER BUCKSKIN | 11 | 45N | 39E | 7200 | WALKER RIVER | | | | | | | | | | | |
| 17L 2 | UPPER CORRAL | 20 | 1 N | 41E | 8500 | 19L11 | (CAL.) BUCKEYE FORKS | 20 | 4N | 23E | 8500 | | | | | | |
| EASTERN NEVADA | | | | | | | | | | | | | | | | | |
| 14L 1 | BAKER #1 | 29 | 13N | 69E | 7950 | 19L10 | (CAL.) BUCKEYE ROUGHS | 15 | 4N | 23E | 7900 | | | | | | |
| 14L 2 | BAKER #2 | 30 | 13N | 69E | 8950 | 19L12 | (CAL.) CENTER MOUNTAIN | 4 | 3N | 23E | 9400 | | | | | | |
| 14L 3 | BAKER #3 | 25 | 13N | 68E | 9250 | 18L 1 | LAPON MEAOOW | 36 | 8N | 28E | 9000 | | | | | | |
| 14K 1,2 | BERRY CREEK | 26 | 17N | 65E | 9100 | 19L 8 | (CAL.) LEAVITT MEAOOWS | 4 | 5N | 22E | 7200 | | | | | | |
| 14K 1 | BIRO CREEK | 34 | 19N | 65E | 7500 | 18L 2 | MT. GRANT | 23 | 8N | 28E | 9000 | | | | | | |
| 15J 13 | CAVE CREEK | 25 | 27N | 57E | 7500 | 19L 7 | (CAL.) SONORA PASS | 1 | 5N | 21E | 8800 | | | | | | |
| 15J 14 | HAGER CANYON | 34 | 27N | 57E | 8000 | 19M 1* | (CAL.) TIOGA PASS | 30 | 1N | 25E | 9900 | | | | | | |
| 15J 15 | HOLE-IN-MTN | 6 | 35N | 61N | 7900 | 19L13 | (CAL.) VIRGINIA LAKES | 5 | 2N | 25E | 9500 | | | | | | |
| 14K 8 | KALAMAZOO CREEK | 34 | 20N | 65E | 7400 | 19L 9 | (CAL.) WILLOW FLAT | 21 | 5N | 23E | 8250 | | | | | | |
| 14K 3 | MURRAY SUMMIT | 25 | 16N | 62E | 7250 | COLORADO | | | | | | | | | | | |
| 15K 1 | ROBINSON SUMMIT | 25 | 18N | 61E | 7600 | 15N 5 | KYLE CANYON | 26 | 19S | 56E | 8200 | | | | | | |
| 14K 7 | SILVER CREEK #2 | 30 | 16N | 69E | 8000 | 15N 4 | LEE CANYON #1 | 10 | 19S | 56E | 8300 | | | | | | |
| 14K 5 | WARO MOUNTAIN #2 | 25 | 15N | 62E | 7875 | 15N 3 | LEE CANYON #2 | 9 | 19S | 56E | 9000 | | | | | | |
| 15L 1* | WHITE RIVER #1 | 31 | 13N | 59E | 7400 | 14M 1 | MATHEW CANYON | 11 | 5S | 70E | 6000 | | | | | | |
| | | | | | | 14M 2 | PINE CANYON | 11 | 6S | 69E | 6200 | | | | | | |
| | | | | | | 15N 7 | RAINBOW CANYON #2 | 6 | 20S | 57E | 8100 | | | | | | |
| | | | | | | 15L 1 | WHITE RIVER #1 | 31 | 13 | 59E | 7400 | | | | | | |

* LOCATED ON ADJACENT WATERSHED
A. M. - AERIAL SNOW DEPTH GAGE.



WATER SUPPLY OUTLOOK
FOR NEVADA

April 1, 1961

STREAMFLOW FORECASTS

Irrigation season water supply forecasts as of April 1 assuming normal spring precipitation range from a low for April-July of 13 percent average for Carson River and Ft. Churchill to a high of 79 percent of average for Lamoille Creek near Lamoille. Most streams are forecast to flow in the 45-50 percent of average range during April-July.

Near record low flow during April-July is forecast for streams heading on the east slopes of the Sierra Mountains from the Walker River on the south to the Truckee River on the north. This will be the third year in a row of much below normal runoff in this area.

The Truckee Basin Forecast Committee forecasts a rise of 0.60 foot from April 1 for Lake Tahoe assuming gates closed. This would allow the Lake to reach a maximum elevation of 6224.5. It is anticipated that the Lake will fall to its natural rim elevation of 6223.0 by early fall. The Truckee at Farad and the Little Truckee above Boca are forecast to flow 44 percent of their April-July 1943-57 average. Due to the limited amount of storage in Lake Tahoe, Boca and other reservoirs and the foregoing forecasts, the Floriston rate of 500 c.f.s. at Farad cannot be maintained through the summer season and will probably fall below 500 c.f.s. in early June. This will result in severe irrigation water shortages during July-September.

April-August streamflow on the East Walker is forecast at 25 percent average while the West Walker is forecast to flow 47 percent of average during April-July. The East and West Carson Stations are forecast to flow 45-46 percent of average during April-July. Downstream the Carson near Carson City and at Ft. Churchill is forecast at 22 percent and 13 percent respectively during April-July.

In the Humboldt-Owyhee watersheds, April-July streamflow forecasts were revised upward from those given on March 1 due to much above normal snowfall during March in these basins. All April-July forecasts in this area still remain below the 1943-57 average with Martin Creek near Paradise forecast at 53 percent, Owyhee River near Owyhee at 47 percent, Lamoille Creek near Lamoille at 79 percent, South Fork Humboldt near Elko at 70 percent and Humboldt at Palisade at 51 percent.

RESERVOIR STORAGE

Reservoir storage in Nevada's principal reservoirs is extremely poor except for Wild Horse which is 100 percent of average. The limited amounts of stored water in these reservoirs will only partially augment the spring and summer irrigation water deficiencies.

As of April 1, Nevada's principal reservoirs held only 21 percent of capacity and 31 percent of their 1943-57 average.*

SOIL MOISTURE

Soil moisture conditions are better than last year but this gain is offset by the poor snowpack. Range conditions are fair but good spring rains will be needed to sustain range forage growth.

SNOW COVER

State-wide mountain snow water content as of April 1, 1961 ranges from 11 percent of average in southern Nevada to slightly above average in the Ruby Mountains. State-wide the snowpack averages around 60 percent of normal.

March snowfall was normal to slightly above normal in most mountain areas of the State except for northeastern and eastern Nevada where two to three times normal March snowfall occurred. Only in the Ruby Mountains did this bring the snowpack on April 1 to normal. Elsewhere the normal March snowfall, coupled with the 50 percent of normal March 1 snowpack, brought about only slight improvement in the mountain snowpack.

WATER CONSERVATION

Nevada's ranchers and farmers should continue to make every effort to obtain maximum use of the limited water supply forecast for this spring and summer.

*Note last month the percent of average was incorrectly shown as 58 percent. The correct value was 28 percent.

NEVADA STREAMFLOW FORECASTS - April 1, 1961

The following summarized runoff forecasts are based principally on mountain snow cover and the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts.

| Forecast Stream | April-July, Streamflow Thousands Acre Feet | | | | | |
|---|--|---------------|-------------------------------|--------------------|------|--|
| | Forecast 1961 | 15-Yr. Av. | 1961 as % of 15-Yr.Avg. | Measured Runoff | | |
| | | 1943-57 | 1960 | 1959 | | |
| Owyhee River nr. Gold Creek, Nev. ¹ | 12 | 27 | 44 | 14 | 7 | |
| Owyhee River nr. Owyhee, Nev. ¹ | 40 | 86 | 47 | 43 | 16 | |
| Lamoille Creek nr. Lamoille, Nev. | 22 | 28 | 79 | 19 | 13 | |
| So. Fk. Humboldt nr. Elko, Nev. | 52 | 74 | 70 | 28 | 10 | |
| Humboldt River at Palisade, Nev. | 115 | 225 | 51 | 63 | 20 | |
| Martin Creek nr. Paradise, Nev. | 9 | 17 | 53 | 10 | 6 | |
| East Walker nr. Bridgeport, Cal. ² | 15 | 61 | 25 | 18 | 18 | |
| West Walker below E. Fk. nr. Coleville, Cal. | 70 | 148 | 47 | 82 | 81 | |
| East Carson nr. Gardnerville, Nev. | 85 | 189 | 45 | 91 | 96 | |
| West Carson at Woodfords, Cal. | 25 | 54 | 46 | 28 | 27 | |
| Carson River nr. Carson City | 40 | 184 | 22 | 50 | 55 | |
| Carson River at Ft. Churchill | 22 | 171 | 13 | 30 | 40 | |
| Little Truckee River above Boca, California ⁵ | 38 | 86* | 44 | 41 | 32 | |
| Truckee River at Farad, Cal. ^{3, 5} | 112 | 255 | 44 | 147 | 109 | |
| Lake Tahoe ^{4, 5} | 0.60 | 1.50 | 40 | 0.54 | 0.44 | |
| Salmon Falls Creek nr. San Jacinto, Nevada | 47** | 88 | 54 | 64 | 36 | |
| | 46*** | 85 | 54 | 62 | 33 | |

1. Corrected for storage in Wild Horse Reservoir.

2. For period April through August corrected for storage in Bridgeport Reservoir.

3. Exclusive of Tahoe and corrected for storage in Boca Reservoir.

4. Maximum rise, in feet, from April 1, assuming gates closed.

5. Forecast issued by Truckee Basin Water Committee which is composed of Truckee-Carson Irrigation District, Sierra Pacific Power Company and Washoe County Water Conservation District.

* Subject to change due to questionable streamflow data.

** Forecast period of March-September.

*** Forecast period of March-July.

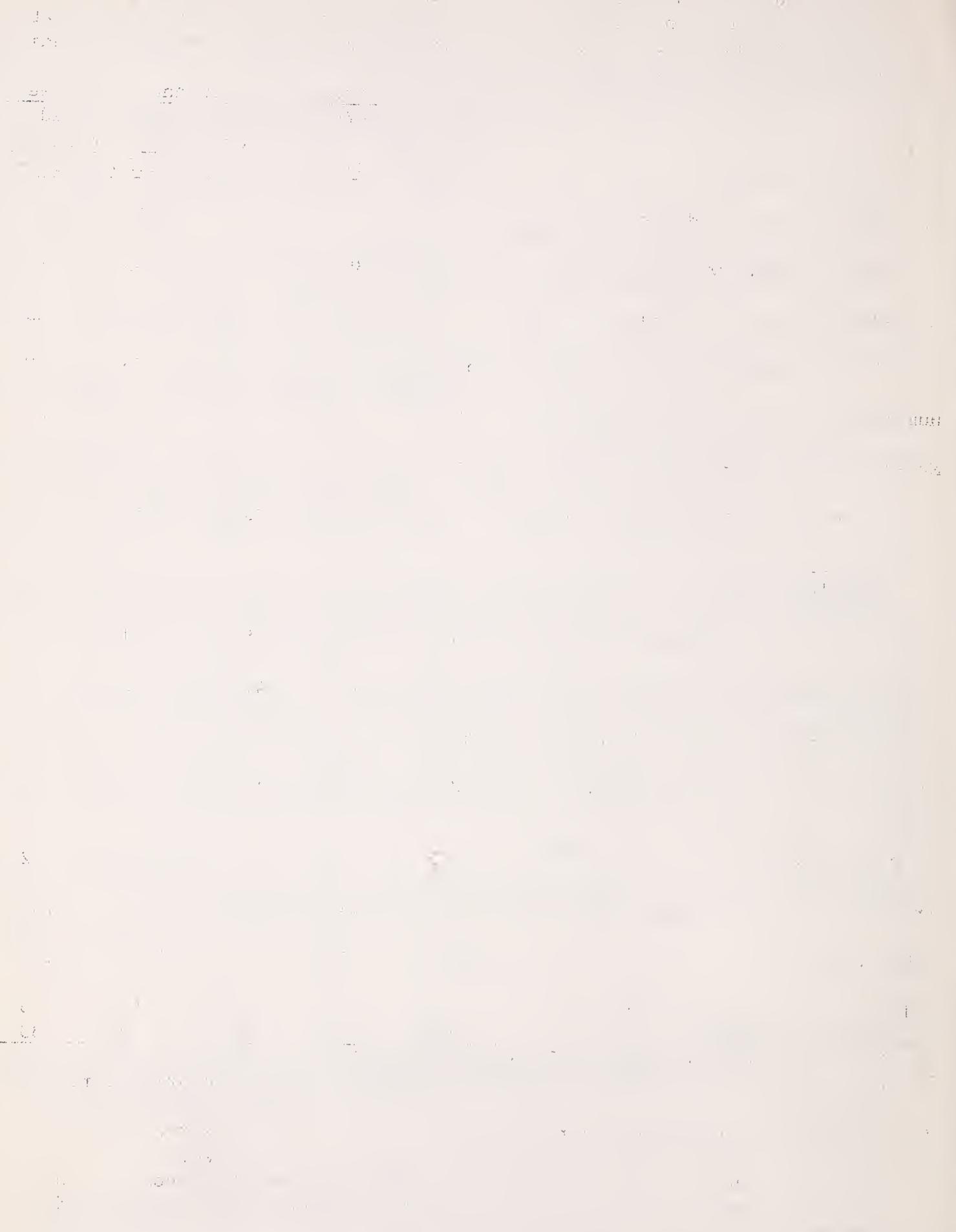


Fig. 1. The relationship between the number of species (S) and the number of individuals (N) in the data sets used in this study.

NEVADA

STATUS OF RESERVOIR STORAGE

APRIL 1, 1961

| BASIN AND STREAM | RESERVOIR | USABLE CAPACITY (1000 AF) | 1961 | 1960 | 1959 | APRIL 1 15-Yr. AVE. 1943-57 |
|------------------|------------|------------------------------|--------|--------|--------|-----------------------------------|
| Owyhee | Wild Horse | 33 | 17 | 13 | 23 | 17 |
| Lower Humboldt | Rye Patch | 179 | 13 | 28 | 123 | 115 |
| Colorado | Mohave | 1,810 | 1,684 | 1,568 | 1,703 | 1,492* |
| Colorado | Mead | 27,217 | 18,212 | 19,171 | 20,735 | 16,437 |
| Tahoe | Tahoe | 732 | 109 | 330 | 563 | 473 |
| Truckee | Boca | 41 | 11 | 22 | 2 | 9 |
| Carson | Lahontan | 286 | 107 | 158 | 254 | 229 |
| West Walker | Topaz | 59 | 15 | 18 | 57 | 45 |
| East Walker | Bridgeport | 42 | 13 | 23 | 43 | 35 |

* Storage began in 1950.



SNOW WATER ACCUMULATION in NEVADA by BASIN

APRIL 1, 1961

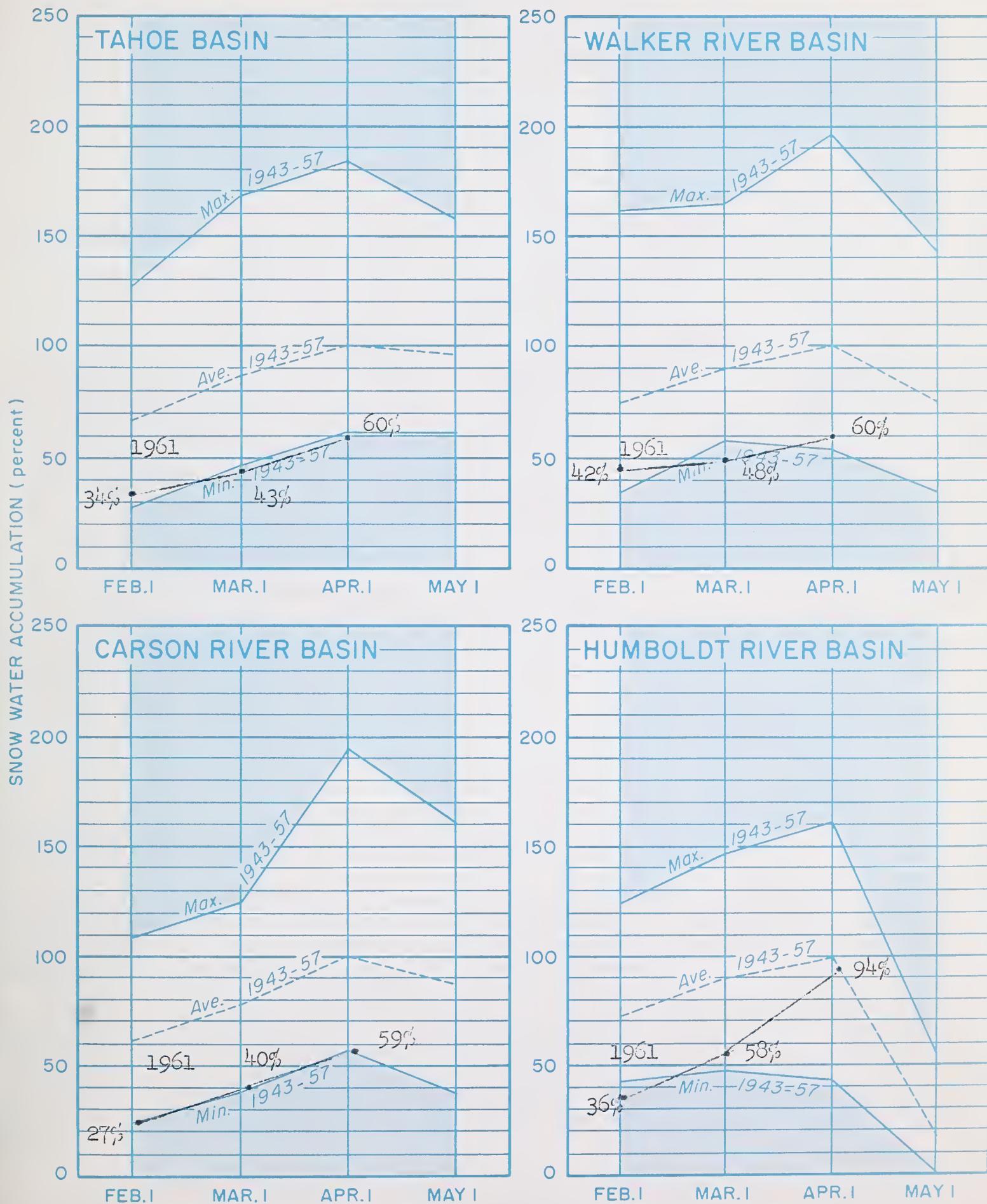


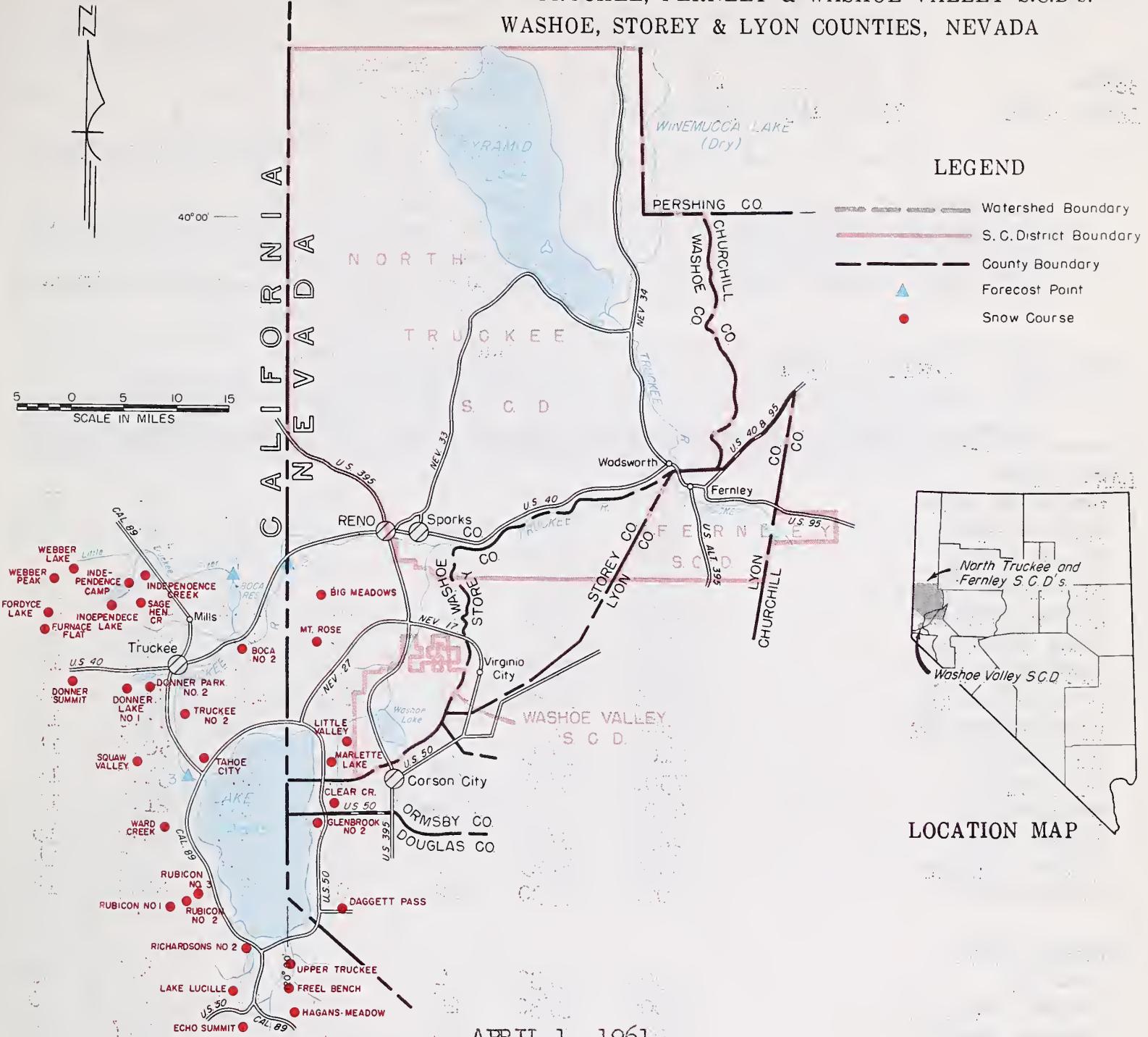
Plate 1



SNOW SURVEY & WATER SUPPLY FORECAST

NORTH TRUCKEE, FERNLEY & WASHOE VALLEY S.C.D.'S.

WASHOE, STOREY & LYON COUNTIES, NEVADA



APRIL 1, 1961

Water users in the Tahoe-Truckee basin can expect a very poor water supply for irrigation needs this coming spring and summer.

The water supply outlook did not improve during the month of March in the Tahoe-Truckee basins. Normal March snowfall occurred in the mountains but coupled with the poor snow pack of March 1 no gains were made. The April 1 mountain snowpack is 60 percent of the April 1, 1943-57 average.

The Truckee Basin Water Committee forecasts that Lake Tahoe should rise 0.60 foot from April 1 through the runoff period assuming gates closed. This rise with gates closed would allow the Lake to reach an elevation of 6224.5. On April 1 the Lake was at an elevation of 6223.89; holding 109,000 acre feet in storage. The Lake is expected to fall to its rim elevation of 6223.00 by early fall.

The Truckee River at Farad is forecast to flow 112,000 acre feet during April-July. The Little Truckee above Boca is forecast at 33,000 acre feet for the same period.

STORAGE (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|------------|--------------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| Boca | 41 | 11 | 22 | 9 |
| Lake Tahoe | 732 | 109 | 330 | 473 |

NOTE: All normals based on 1943-1957 15 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| FORECAST POINT | FORECAST | MEASURED | |
|--|-----------|-----------|--------|
| | THIS YEAR | LAST YEAR | NORMAL |
| 1. Little Truckee River above Boca | 38 | 41 | 86* |
| 2. Truckee River at Farad, Calif. | 112 | 147 | 255 |
| 3. Lake Tahoe rise (In ft. from Apr. 1, assuming gates closed) | 0.6 | 0.54 | 1.50 |
| Note: Above forecasts prepared by Truckee Basin Water Committee. | | | |

* Subject to change.

SNOW APRIL 1, 1961

| SNOW COURSE | | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | CURRENT INFORMATION | | PAST RECORD | |
|----------------------|-----------|----------------|---------------------|------------------------|---------------------|--------|------------------------|-----------------|
| NAME | ELEVATION | | | | LAST YEAR | NORMAL | WATER CONTENT (Inches) | YEARS OF RECORD |
| LAKE TAHOE | | | | | | | | |
| Daggetts Pass | 7350 | 3/28 | 8 | 3.2 | 1.3 | 12.1 | 15 | |
| Echo Summit | 7500 | 3/30 | 64 | 21.2 | 26.0 | 40.3 | 15 | |
| Freel Bench | 7300 | 3/29 | 14 | 5.2 | 2.6 | 11.7 | 14 | |
| Glenbrook #2 | 6900 | 4/2 | 19 | 5.9 | 4.9 | 14.5 | 15 | |
| Hagens Meadow | 8000 | 3/29 | 30 | 10.6 | 10.1 | 18.4 | 14 | |
| Lake Lucille | 8400 | 4/1 | 105 | 41.5 | 50.5 | 62.9 | 15 | |
| Little Valley | 6300 | 3/29 | 7 | 2.2 | 1.0 | 8.4 | 15 | |
| Marlette Lake | 8000 | 3/28 | 45 | 13.9 | 13.7 | 23.3 | 15 | |
| Richardsons #2 | 6500 | 4/2 | 25 | 8.8 | 9.2 | 17.8 | 14 | |
| Rubicon #1 | 8100 | 3/25 | 93 | 30.3 | 39.8 | 50.6 | 14 | |
| Rubicon #2 | 7500 | 3/25 | 56 | 18.1 | 20.8 | 31.7 | 14 | |
| Rubicon #3 | 6700 | Abandoned* | | | 13.5 | 21.4 | 14 | |
| Tahoe City | 6250 | 3/30 | 0 | 0.0 | 1.7 | 11.4 | 15 | |
| Upper Truckee | 6400 | 3/29 | 7 | 3.1 | 0.6 | 7.7 | 14 | |
| Ward Creek | 7000 | 3/30 | 82 | 30.3 | 38.1 | 46.7 | 14 | |
| TRUCKEE RIVER | | | | | | | | |
| Boca #2 | 5900 | 3/30 | T | T | T | 4.8 | 13 | |
| Donner Park #2 | 6000 | 3/30 | 26 | 9.1 | 12.3 | - | 0 | |
| Donner Summit | 6900 | 3/29 | 66 | 25.3 | 28.6 | 39.7 | 15 | |
| Fordyce Lake | 6500 | Report delayed | | | 34.2 | 41.2 | 15 | |
| Furnace Flat | 6600 | 3/31 | 82 | 31.1 | 38.6 | 47.2 | 14 | |
| Independence Camp | 7000 | 3/31 | 33 | 12.0 | 15.6 | 24.2 | 15 | |
| Independence Creek | 6500 | 3/31 | 10 | 4.5 | 5.2 | 15.5 | 15 | |
| Independence Lake | 8450 | 3/31 | 70 | 24.8 | 35.2 | 41.9 | 15 | |
| Mt. Rose | 9000 | 3/29 | 62 | 23.1 | 30.3 | 34.9 | 15 | |
| Sage Hen Creek | 6500 | 3/27 | 24 | 9.0 | 12.4 | 18.9 | 15 | |
| Squaw Valley #2 | 7500 | 4/2 | 83 | 33.1 | 43.2 | - | 4 | |
| Truckee #2 | 6400 | 3/27 | 22 | 7.0 | 8.7 | 15.6 | 14 | |
| Webber Lake | 7000 | 3/30 | 55 | 18.7 | 22.7 | 33.9 | 15 | |
| Webber Peak | 8000 | 3/30 | 84 | 30.3 | 33.6 | 43.9 | 15 | |

Continued from Plate 2

The Committee reports that Donner Lake is expected to fill. Independence Lake now holds 9,000 acre feet and is estimated to fill to 12,000 acre feet or 70 percent of capacity. Boca contains 11,000 acre feet and is not expected to gain any substantial amount during the spring-summer runoff season.

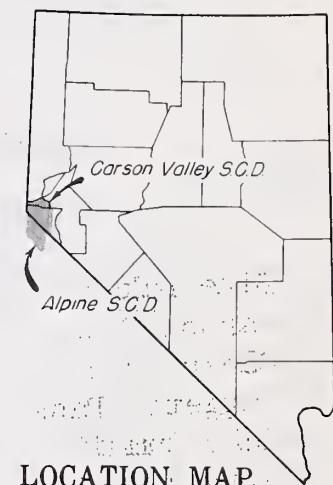
Severe shortages of irrigation water are anticipated during July-September. The Truckee is expected to fall below the Floristan rate of 500 c.f.s. in early June. With proper conservation sufficient water is anticipated for Reno and Sparks municipal and industrial use. Water for power production during the fall of 1961 and winter of 1962 will be extremely short.



SNOW SURVEY & WATER SUPPLY FORECAST

CARSON VALLEY S.C.D., NEVADA
and ALPINE S.C.D., CALIFORNIA

5 0 5 10
SCALE IN MILES



LOCATION MAP

LEGEND

- Watershed Boundary
- S.C. District Boundary
- County Boundary
- Forecast Point
- Snow Course

APRIL 1, 1961

March snowfall in the Carson watershed was normal. However, the snowpack is only 49 percent of the April 1 normal. Snow cover is very spotty with south facing slopes mostly bare.

Ranchers in Carson Valley can expect critically short irrigation season water supplies very similar to last year in character if not slightly worse.

(over)

Plate 3

STORAGE (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|-----------|-----------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| Lahontan | 286 | 107 | 158 | 229 |

NOTE: All normals based on 1943-1957 15 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| FORECAST POINT | FORECAST | MEASURED | |
|-------------------------------------|-----------|-----------|--------|
| | THIS YEAR | LAST YEAR | NORMAL |
| 1. East Carson near Gardnerville | 85 | 91 | 189 |
| 2. West Carson at Woodfords, Calif. | 25 | 28 | 54 |
| 3. Carson River near Carson City | 40 | 50 | 184 |
| 4. Carson River at Ft. Churchill | 22 | 30 | 171 |

APRIL 1, 1961
SNOW

| SNOW COURSE | CURRENT INFORMATION | | | PAST RECORD | | YEARS OF RECORD |
|---------------|---------------------|-----------|----------------|---------------------|------------------------|-----------------|
| | NAME | ELEVATION | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | |
| Blue Lakes | 8000 | 3/25 | 64 | 21.9 | 23.8 | 36.1 |
| Carson Pass | 8600 | 3/30 | 63 | 20.2 | 25.9 | 35.4 |
| Clear Creek | 7300 | 3/29 | 18 | 6.9 | 3.1 | 14.8 |
| Daggetts Pass | 7350 | 3/28 | 8 | 3.2 | 1.3 | 12.1 |
| Echo Summit | 7500 | 3/30 | 64 | 21.2 | 26.0 | 40.3 |
| Glenbrook #2 | 6900 | 4/2 | 19 | 5.9 | 4.9 | 14.5 |
| Marlette Lake | 8000 | 3/28 | 45 | 15.3 | 13.7 | 23.3 |
| Poison Flat | 7900 | 4/1 | 20 | 8.6 | 9.5 | 15.8 |
| Sonora Pass | 8800 | 3/27 | 45 | 15.2 | 17.3 | 24.1 |

Continued from front

The April-July forecast of the West Carson at Woodfords is 25,000 acre feet or 46 percent of average. The East Carson near Gardnerville is forecast to flow 85,000 acre feet or 45 percent of average during the same period. Downstream at Carson City the Carson River is forecast to flow 40,000 acre feet or 22 percent of average during April-July. At Ft. Churchill the Carson is expected to flow 22,000 acre feet or 13 percent of the April-July 1943-57 average. These forecasted flows rank among the low years of 1924, 1931, 1934, 1959 and 1960.

Spring precipitation, if above normal, could improve the present outlook. Due to the limited snowpack the effect of precipitation on irrigation season runoff will not be marked unless it occurs early in the spring particularly during the month of April.

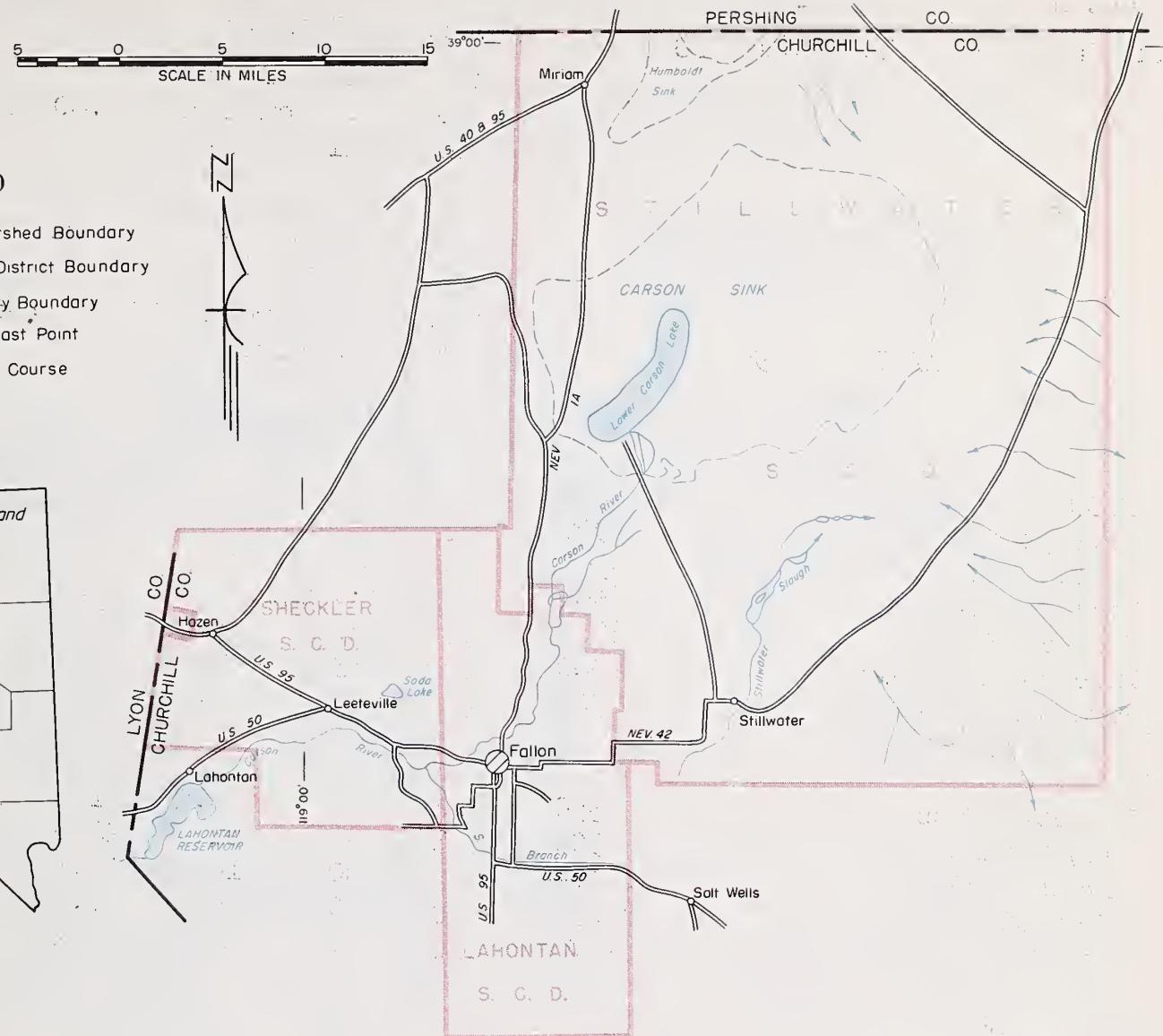
The East Carson near Gardnerville is forecast to drop to 200 c.f.s. on June 25. A combination of high temperatures and below normal precipitation would result in the 200 c.f.s. date occurring even earlier than June 25. Last year the date of 200 c.f.s. flow was June 23. The normal date is July 23.

Lahontan Reservoir contains 107,000 acre feet which is 47 percent of average (1943-57) and 37 percent of capacity. Very little inflow into Lahontan from the Carson River can be expected.

SNOW SURVEY & WATER SUPPLY FORECAST

STILLWATER, SHECKLER, LAHONTAN S.C.D.'s. & VICINITY

CHURCHILL COUNTY, NEVADA



APRIL 1, 1961

The spring-summer water supply outlook did not improve for water users in the Fallon area although March snowfall in the Sierra watersheds which provide water to Lahontan Reservoir was normal. Water users can expect a very limited water supply this coming spring and summer.

Lake Tahoe is expected to rise 0.60 foot from April 1 through the runoff season assuming gates closed. This is 40 percent of average and the Lake would rise from its April 1 elevation of 6223.89 to 6224.5. Present storage in Lake Tahoe which has a usable capacity of 732,000 acre feet is 109,000 acre feet or 15 percent of average. The Lake is expected to fall to its rim elevation of 6223.00 by early fall.

The Truckee at Farad is forecast to flow 112,000 acre feet during April-July which is 44 percent of normal. The Floristan rate of 500 c.f.s. can not be sustained throughout the irrigation season. The Truckee is expected to fall below 500 c.f.s. in early June.

The Carson at Ft. Churchill is forecast to flow 22,000 acre feet during April-July or 13 percent of average.

Lahontan held 107,000 acre feet on April 1 which is 47 percent of average (1943-57) and 37 percent of capacity.

STORAGE (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|------------|-----------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| Lahontan | 286 | 107 | 158 | 229 |
| Lake Tahoe | 732 | 109 | 330 | 473 |

NOTE: All normals based on 1943-1957 15 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| FORECAST POINT | FORECAST | MEASURED | |
|---|-----------|-----------|--------|
| | THIS YEAR | LAST YEAR | NORMAL |
| Truckee River at Farad, Calif.* | 112 | 147 | 255 |
| Lake Tahoe rise* (In ft. from April 1 assuming gates closed) | 0.60 | 0.54 | 1.50 |
| Carson River at Ft. Churchill | 22 | 30 | 171 |

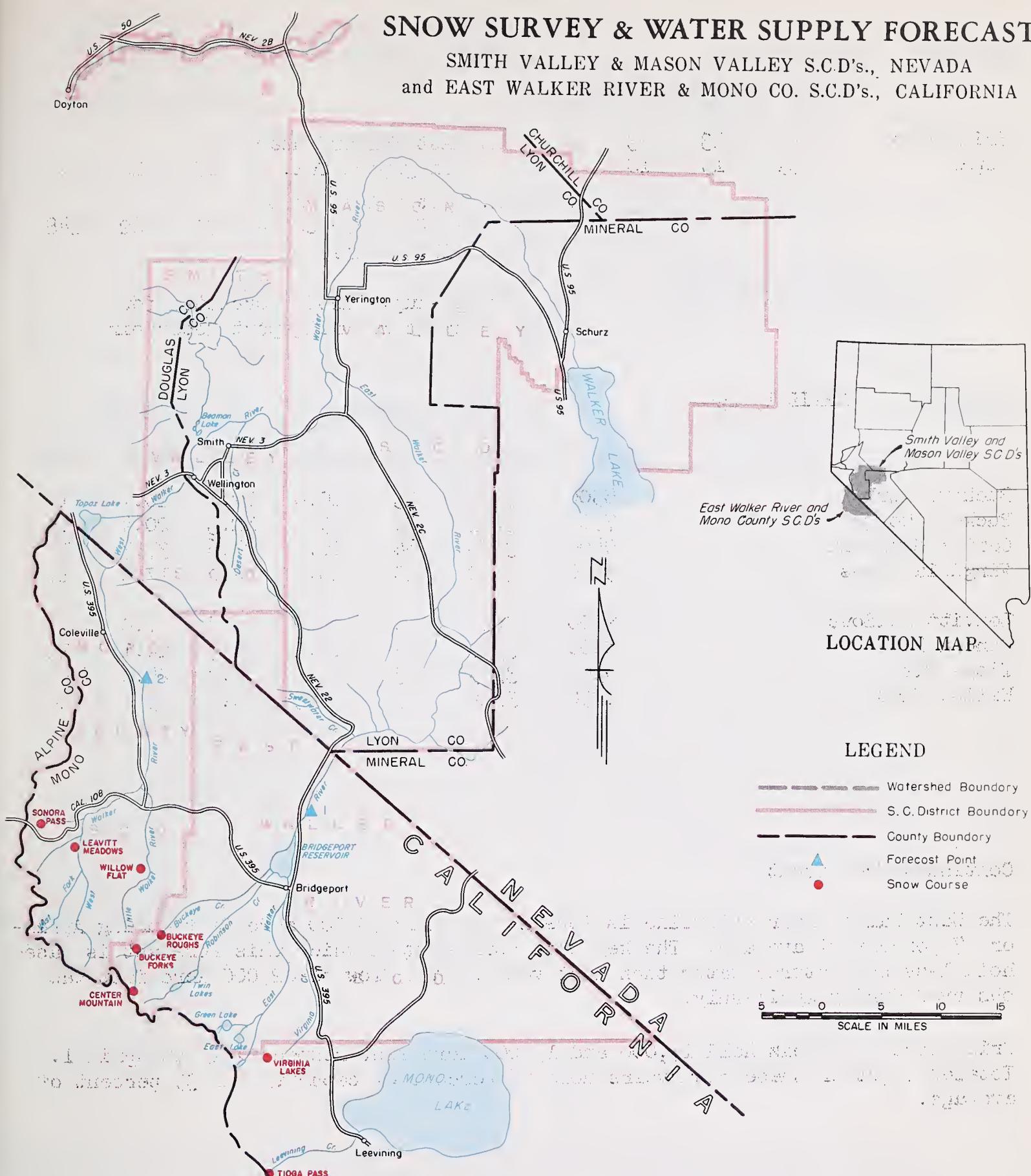
* Forecasts prepared by Truckee Basin Water Committee

SNOW APRIL 1, 1961

| SNOW COURSE | CURRENT INFORMATION | | | PAST RECORD | | YEARS OF RECORD |
|----------------------|---------------------|----------------|----------------|---------------------|------------------------|-----------------|
| | NAME | ELEVATION | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | |
| TRUCKEE RIVER | | | | | | |
| Boca #2 | 5900 | 3/30 | T | T | T | 4.8 |
| Donner Summit | 6900 | 3/29 | 66 | 25.3 | 28.6 | 39.7 |
| Fordyce Lake | 6500 | Report delayed | | 34.2 | 41.2 | 15 |
| Furnace Flat | 6600 | 3/31 | 82 | 31.1 | 38.6 | 47.2 |
| Independence Camp | 7000 | 3/31 | 33 | 12.0 | 15.6 | 24.2 |
| Sage Hen Creek | 6500 | 3/27 | 24 | 9.0 | 12.4 | 18.9 |
| LAKE TAHOE | | | | | | |
| Daggetts Pass | 7350 | 3/28 | 8 | 3.2 | 1.3 | 12.1 |
| Echo Summit | 7500 | 3/30 | 64 | 21.2 | 26.0 | 40.3 |
| Hagans Meadow | 8100 | 3/29 | 30 | 10.6 | 10.1 | 18.4 |
| Tahoe City | 6250 | 3/30 | 0 | 0 | 1.7 | 11.4 |
| Ward Creek | 7000 | 3/30 | 82 | 30.8 | 38.1 | 46.7 |
| CARSON RIVER | | | | | | |
| Blue Lakes | 8000 | 3/25 | 64 | 21.9 | 23.8 | 36.1 |
| Carson Pass | 8600 | 3/30 | 63 | 20.2 | 25.9 | 35.4 |
| Clear Creek | 7300 | 3/29 | 18 | 6.9 | 3.1 | 14.8 |
| Poison Flat | 7900 | 4/1 | 20 | 8.6 | 9.5 | 15.8 |

SNOW SURVEY & WATER SUPPLY FORECAST

SMITH VALLEY & MASON VALLEY S.C.D's., NEVADA
and EAST WALKER RIVER & MONO CO. S.C.D's., CALIFORNIA



APRIL 1, 1961

Although normal March snowfall occurred in the mountain watersheds of the Walker basin, the April 1 mountain snowpack remains much below normal at 60 percent of average. Water users in Smith and Mason Valleys will have an extremely poor 1961 spring-summer irrigation season.

Irrigation season forecasts were adjusted slightly from those given last month. The East Walker at Bridgeport is now forecast to flow 15,000 acre feet during April-August which is 25 percent of average (1943-57). Last year with somewhat better snow conditions in this watershed a flow of 18,000 acre feet during April-August was observed. (over)

(over)

STORAGE (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|------------|-----------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| Bridgeport | 42 | 13 | 23 | 35 |
| Topaz | 59 | 15 | 18 | 45 |

NOTE: All normals based on 1943-1957 15 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| FORECAST POINT | FORECAST | MEASURED | |
|--|-----------|-----------|--------|
| | THIS YEAR | LAST YEAR | NORMAL |
| 1. East Walker* near Bridgeport, Cal. | 15 | 18 | 61 |
| 2. West Walker below E. Fk. near Coleville, Calif. | 70 | 82 | 148 |

* Apr-Aug. runoff corrected for change in Bridgeport Reservoir

SNOW APRIL 1, 1961

| SNOW COURSE | CURRENT INFORMATION | | | PAST RECORD | | YEARS OF RECORD |
|-----------------|---------------------|-----------|----------------|---------------------|------------------------|-----------------|
| | NAME | ELEVATION | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | |
| | | | | | WATER CONTENT (Inches) | YEARS OF RECORD |
| Buckeye Forks | | 8500 | 3/23 | 33 | 10.0 | 12.6 |
| Buckeye Roughs | | 7900 | 3/23 | 25 | 9.4 | 12.3 |
| Center Mountain | | 9400 | 3/24 | 64 | 20.4 | 37.7 |
| Virginia Lakes | | 9500 | 3/22 | 30 | 10.0 | 12.6 |
| Leavitt Meadows | | 7200 | 3/27 | 0 | 0.0 | 0.8 |
| Sonora Pass | | 8800 | 3/27 | 45 | 15.2 | 17.3 |
| Tioga Pass | | 9900 | 3/29 | 53 | 16.8 | 16.0 |
| Willow Flat | | 8250 | 3/22 | 15 | 7.3 | 6.8 |

Continued from front

The West Walker near Coleville is forecast to flow 70,000 acre feet during April-July or 47 percent of average. The key snow courses upon which this forecast is based hold less snow stored water than last year when a flow of 82,000 acre feet was observed during April-July.

Bridgeport and Topaz held 13,000 and 15,000 acre feet respectively on April 1. Totalled together these reservoirs hold 23 percent of capacity and 35 percent of average.

SNOW SURVEY & WATER SUPPLY FORECAST

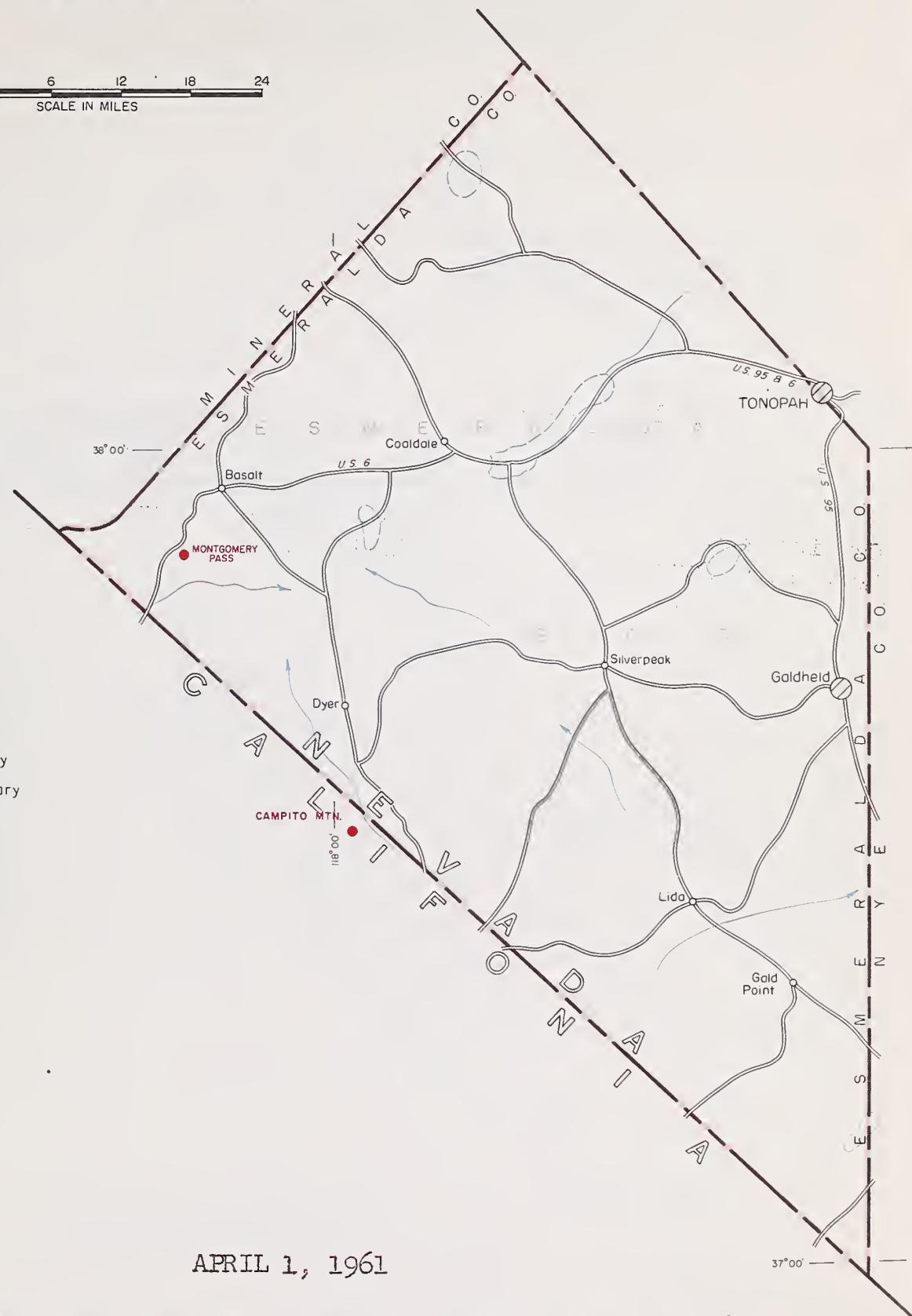
ESMERALDA S.C.D., ESMERALDA COUNTY, NEVADA

6 0 6 12 18 24
SCALE IN MILES



LEGEND

- Watershed Boundary
- S. C. District Boundary
- County Boundary
- ▲ Forecast Point
- Snow Course



APRIL 1, 1961

Snowpack in the White Mountains is better than the last two years but is below normal for April 1. This is based on the fact that mountain snow water accumulation in nearby Nevada and California watersheds is about 30 to 50 percent of normal.

Mountain soils have gained in moisture during the past four months and are partially wetted.

Below normal runoff is expected in this area. Recharge of ground water in Fish Lake Valley and on the west side of the White Mountains will be limited this year.

Plate 6

STORAGE (1,000 Ac. Ft.)

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|-----------|-----------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| | | | | |

| FORECAST POINT | FORECAST | | | MEASURED | | |
|----------------|-----------|-----------|--------|-----------|-----------|--------|
| | THIS YEAR | LAST YEAR | NORMAL | THIS YEAR | LAST YEAR | NORMAL |
| | | | | | | |

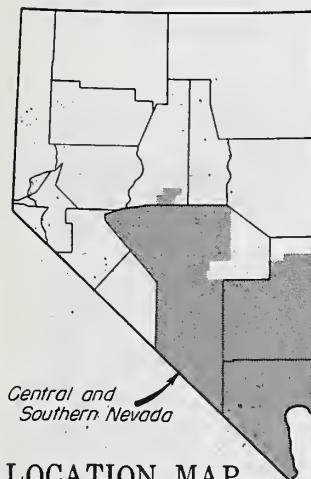
NOTE: All normals based on 1943-1957 15 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

SNOW APRIL 1, 1961

| SNOW COURSE | NAME | ELEVATION | CURRENT INFORMATION | | | PAST RECORD | | YEARS OF RECORD |
|-----------------|------|-----------|---------------------|---------------------|------------------------|------------------------|-----------|-----------------|
| | | | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | WATER CONTENT (Inches) | LAST YEAR | |
| Campito Mtn. | | 10200 | 3/24 | 12 | 4.0 | 0.0 | - | 0 |
| Montgomery Pass | | 7100 | 3/23 | 0 | 0.0 | 0.0 | - | 0 |

SNOW SURVEY & WATER SUPPLY FORECAST

CENTRAL and SOUTHERN NEVADA
CLARK, LINCOLN & NYE COUNTIES, NEVADA



LOCATION MAP

LEGEND

- Watershed Boundary
- S. C. District Boundary
- County Boundary
- Forecast Point
- Snow Course

SCALE IN MILES

APRIL 1, 1961

April 1, 1961 water content of snow in the Spring Mountains near Las Vegas is near record low. A slight increase in the snowpack occurred in March but the snow courses in this area are only 28 percent of average. Poor recharge into the ground water basin from this mountain range is anticipated.

Mathe and Pine Canyon snow courses have no snow as of April 1 as was the case on March 1. On February 1, 1961 there was about 1.5 inches of snow stored water at these courses.

STORAGE (1,000 Ac. Ft.) *

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|-----------|-----------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| Mead | 2722 | 1822 | 1917 | 1644 |
| Mohave | 181 | 168 | 157 | 149** |

* 10,000 acre feet

** Storage began in 1950
 NOTE: All normals based on 1943-1957 15 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

| FORECAST POINT | FORECAST | MEASURED | |
|----------------|-----------|-----------|--------|
| | THIS YEAR | LAST YEAR | NORMAL |
| | | | |
| | | | |

SNOW

APRIL 1, 1961

| SNOW COURSE | | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | PAST RECORD | | YEARS OF RECORD |
|--------------------------|------|----------------|---------------------|------------------------|-------------|--------|-----------------|
| | | | | | LAST YEAR | NORMAL | |
| Clark Canyon | 9000 | 3/29 | 15 | 3.1 | 7.9 | 7.8 | 13 |
| Kyle Canyon | 8200 | 3/28 | 8 | 1.4 | 3.6 | 9.0 | 14 |
| Lee Canyon #1 | 8300 | 3/27 | 2 | 1.3 | 3.7 | 8.0 | 15 |
| Lee Canyon #2 | 9000 | 3/27 | 12 | 3.2 | 6.7 | 9.0 | 14 |
| Rainbow Canyon #2 | 8100 | 3/28 | 18 | 4.3 | 10.3 | 15.0 | 11 |
| Trough Springs | 8500 | 3/29 | 7 | 1.9 | 6.0 | 5.4 | 12 |
| MEADOW VALLEY SCD | | | | | | | |
| Mathew Canyon | 6200 | 4/1 | 0 | 0.0 | 1.1 | 0.5 | 9 |
| Pine Canyon | 6000 | 4/2 | 0 | 0.0 | 0.3 | 0.9 | 9 |
| TONOPAH SCD | | | | | | | |
| Lower Corral | 7500 | 4/1 | 0 | 0.0 | 0.0 | 1.6 | 14 |
| Upper Corral | 8500 | 4/1 | 1 | 0.5 | 0.0 | 4.0 | 13 |

Continued from front

Upper and Lower Corral snow courses on the upper end of Reese River have only about 10 percent of their April 1 average water content. Small streams in this area will have poor runoff.

Water users in Virgin Valley will have a below normal water supply this coming spring-summer at least that part of their water supply originating from mountain snowmelt in the headwaters of the Virgin River in Utah. The Virgin River at Virgin is forecast to flow 66 percent of normal during April-July.

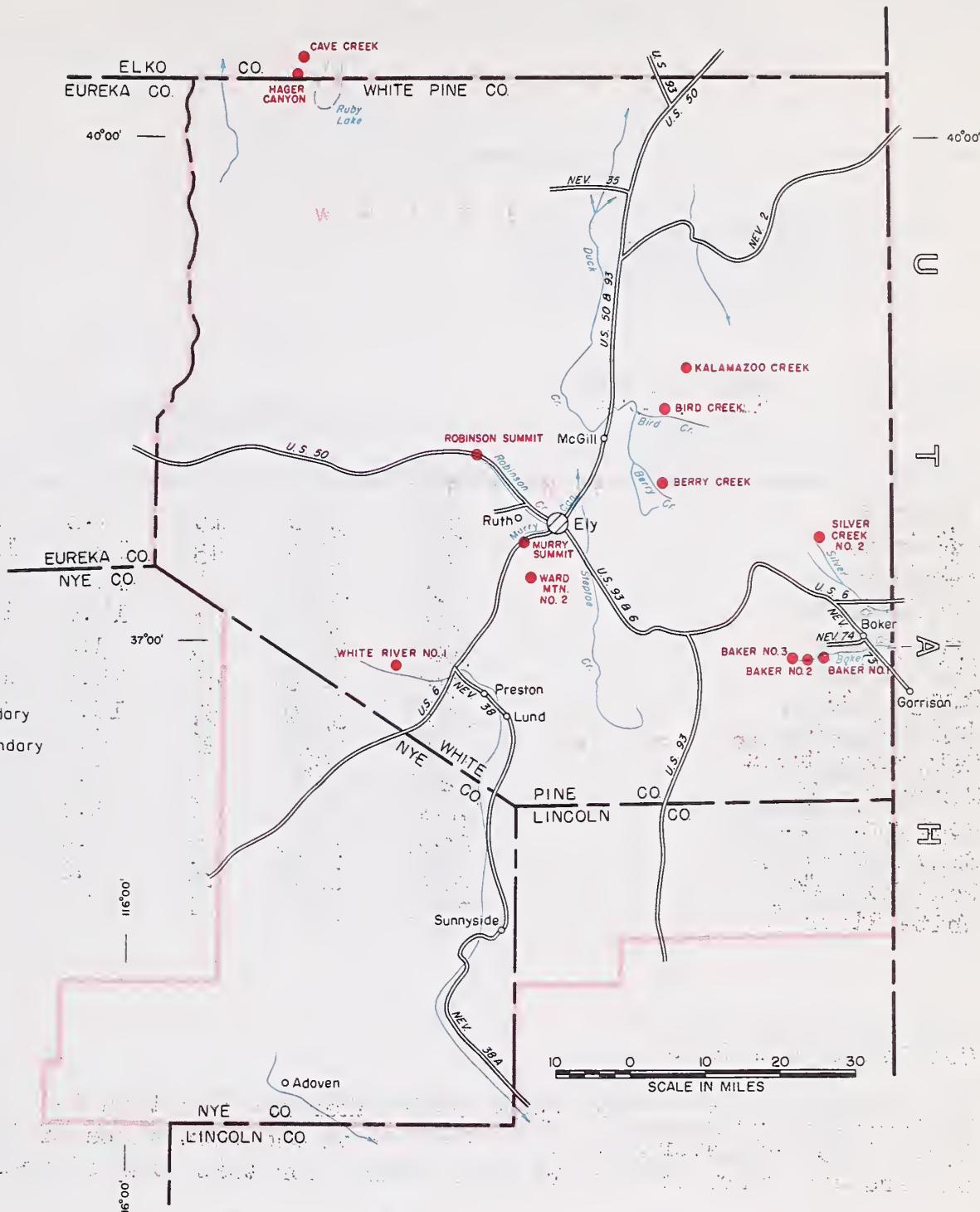
SNOW SURVEY & WATER SUPPLY FORECAST

WHITE PINE S.C.D., WHITE PINE, LINCOLN & NYE COUNTIES, NEVADA



LEGEND

- Watershed Boundary
- S. C. District Boundary
- County Boundary
- Forecast Point
- Snow Course



The snowpack in White Pine County has increased considerably during March. The snowpack increased from 51 percent of normal on March 1 to 82 percent of normal on April 1. This increase definitely improves the water supply situation from what it was on March 1. Were it not for this increase a very critical water situation would have existed this year.

Irrigation water supplies will be somewhat below normal in White Pine SCD this year, particularly during the latter part of the irrigation season. Careful management of all available water will be of importance again this year.

Good fall rains occurred in this area and the mountain soils are rated damp to wet. Little snowmelt water will be needed to prime the soils.

(over)

STORAGE (1,000 Ac. Ft.)

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|-----------|-----------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| | | | | |

| FORECAST POINT | FORECAST | MEASURED | |
|----------------|-----------|-----------|--------|
| | THIS YEAR | LAST YEAR | NORMAL |
| | | | |

NOTE: All normals based on 1943-1957 15 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

SNOW APRIL 1, 1961

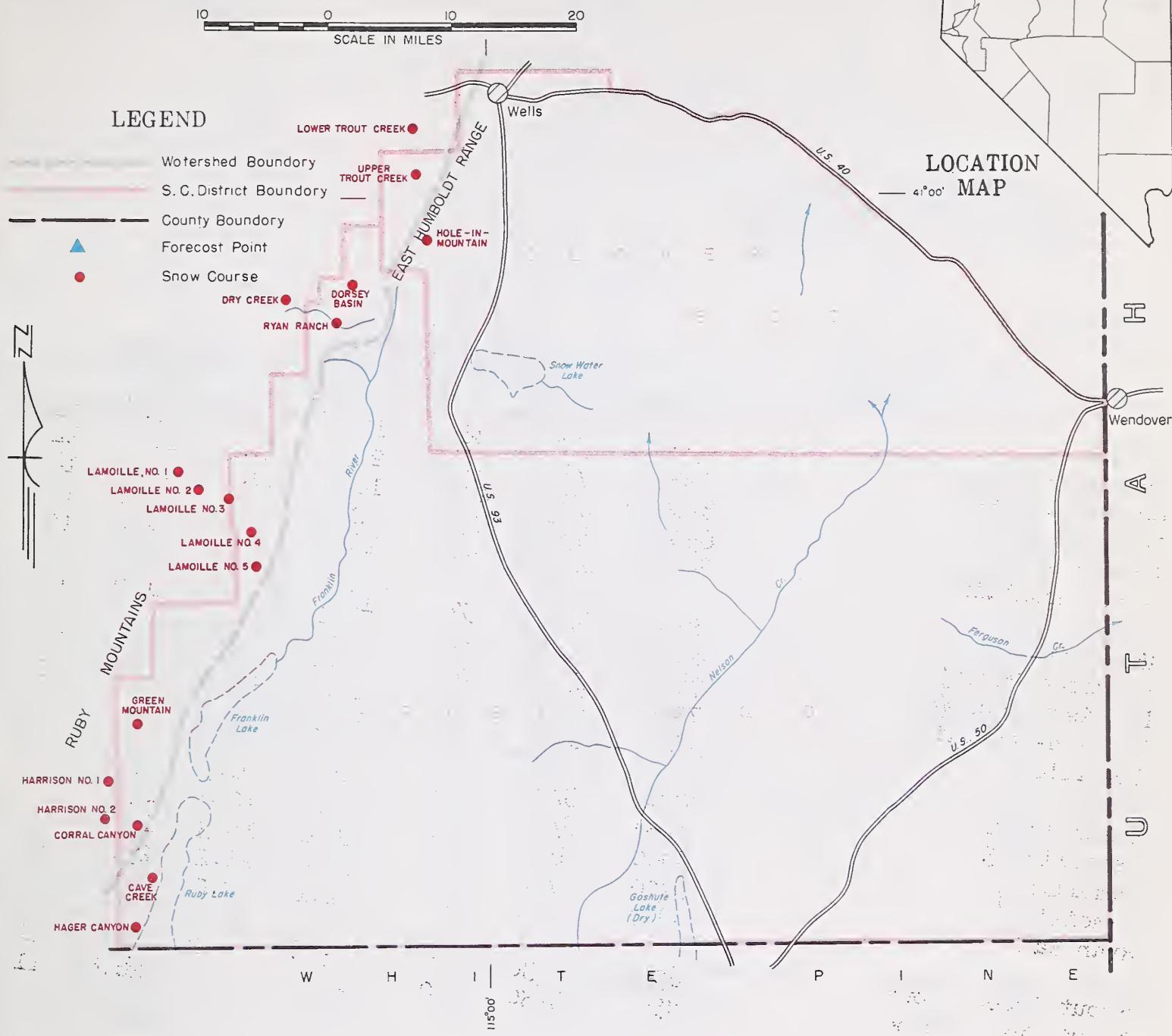
| SNOW COURSE | NAME | ELEVATION | CURRENT INFORMATION | | | PAST RECORD | | YEARS OF RECORD |
|-----------------|------|-----------|---------------------|---------------------|------------------------|------------------------|-----------|-----------------|
| | | | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | WATER CONTENT (Inches) | LAST YEAR | |
| Baker #1 | | 7950 | 3/30 | 15 | 4.3 | 3.0 | 6.5 | 15 |
| Baker #2 | | 8950 | 3/30 | 43 | 12.6 | 11.1 | 17.7 | 15 |
| Baker #3 | | 9250 | 3/30 | 54 | 15.2 | 13.6 | 19.3 | 15 |
| Berry Creek | | 9100 | 3/28 | 61 | 14.9 | 10.9 | 16.9 | 10 |
| Bird Creek | | 7500 | 3/28 | 19 | 3.8 | 1.0 | 3.4 | 10 |
| Cave Creek | | 7500 | 3/30 | 46 | 15.5 | 12.5 | 15.6 | 13 |
| Hager Canyon | | 8000 | 3/30 | 57 | 18.1 | 15.4 | 21.9 | 13 |
| Kalamazoo Creek | | 7400 | 3/29 | 26 | 6.8 | 2.6 | - | - |
| Murry Summit | | 7250 | 3/27 | 5 | 2.0 | 0.0 | 3.0 | 15 |
| Robinson Summit | | 7600 | 3/31 | 6 | 1.7 | 0.0 | 2.2 | 8 |
| Silver Creek #2 | | 8000 | 3/31 | 24 | 6.6 | 4.1 | - | 1 |
| Ward Mtn. #2 | | 8900 | 3/27 | 36 | 7.6 | 8.7 | - | 1 |
| White River #1 | | 7400 | 3/27 | T | T | 0.0 | - | - |

Continued from front

The snowpack in the Snake Range near Baker and Garrison is 72 percent of the April 1, 1943-57 average. Snow courses on the west slope of the Schell Range on Bird and Berry Creeks are near normal for this time of year.

SNOW SURVEY & WATER SUPPLY FORECAST

CLOVER & RUBY S.C.D.'S., ELKO COUNTY, NEVADA



APRIL 1, 1961

Snow courses on the west slopes of the Ruby Mountains indicate a large increase in snow water content over last month. March storms added two to three times the usual March increase. This has resulted in a near to slightly above normal snowpack as of April 1.

At the southern end of the Rubys two courses at the Ruby Lake National Wildlife Refuge were found to be 90 percent of the 1943-57 average.

Early season streamflow in this area will be good. Midsummer and late summer streamflow may prove to be poor due to the tendency of the March snow to melt more rapidly than if it had occurred earlier in the winter.

STORAGE (1,000 Ac. Ft.)

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|-----------|-----------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| | | | | |

| FORECAST POINT | FORECAST | MEASURED | |
|----------------|-----------|-----------|--------|
| | THIS YEAR | LAST YEAR | NORMAL |
| | | | |

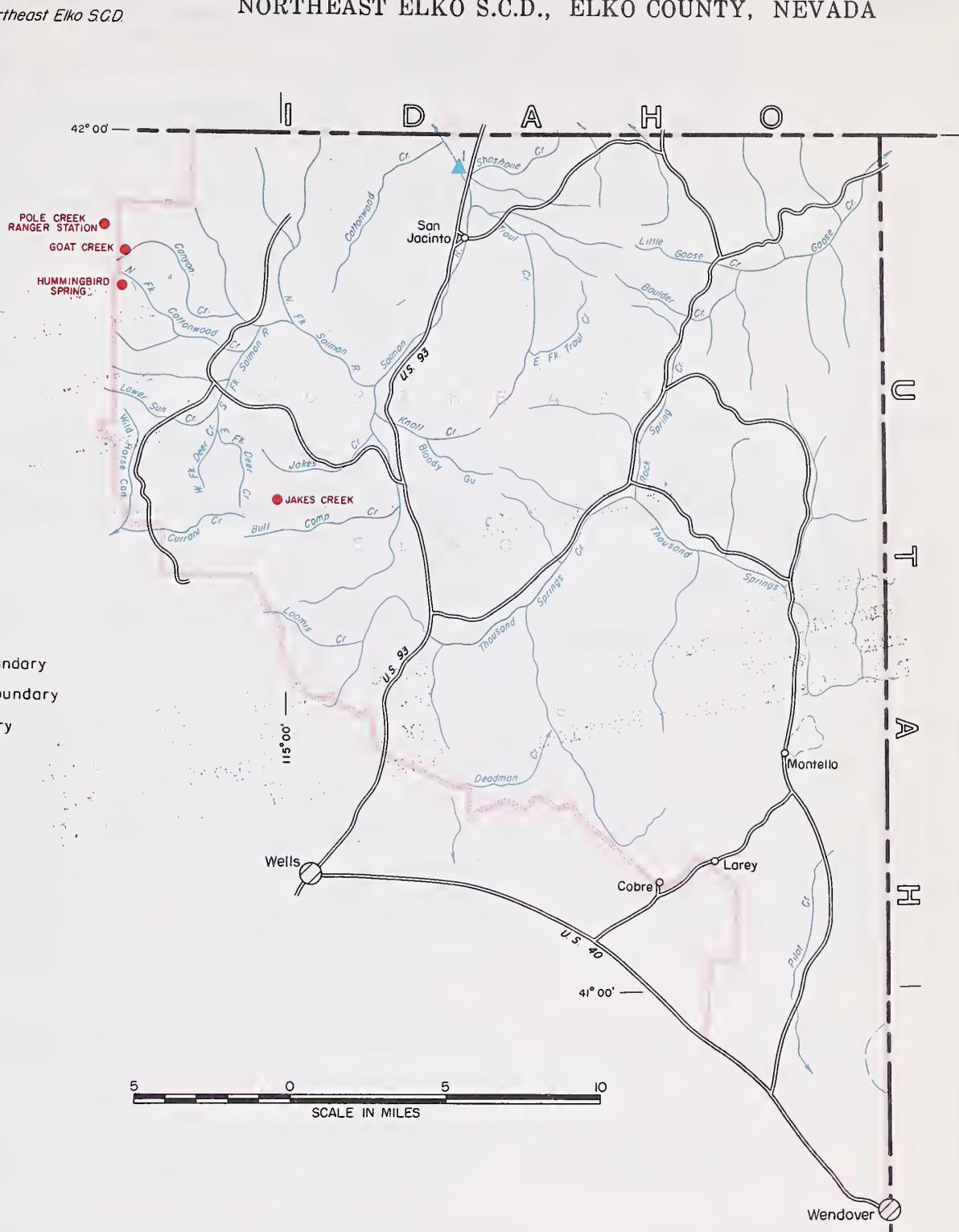
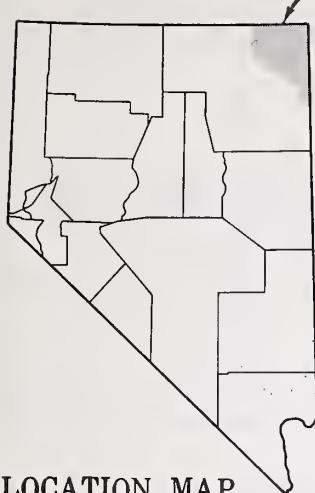
NOTE: All normals based on 1943-1957 15 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

SNOW

| SNOW COURSE | NAME | ELEVATION | CURRENT INFORMATION | | | PAST RECORD | | YEARS OF RECORD |
|--------------------|------|-----------|---------------------|---------------------|------------------------|------------------------|-----------|-----------------|
| | | | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | WATER CONTENT (Inches) | LAST YEAR | |
| Cave Creek | | 7500 | 3/30 | 46 | 15.5 | 12.5 | 15.6 | 13 |
| Corral Canyon | | 8500 | 3/29 | 76 | 22.2 | 13.7 | 19.4 | 12 |
| Dorsey Basin | | 8100 | 3/27 | 60 | 16.0 | 10.9 | 14.7 | 14 |
| Dry Creek | | 6500 | 3/27 | 15 | 2.4 | T | 3.6 | 14 |
| Green Mountain | | 8000 | 3/28 | 59 | 16.3 | 9.6 | 13.1 | 12 |
| Hager Canyon | | 8000 | 3/30 | 57 | 18.1 | 15.4 | 21.9 | 13 |
| Harrison Pass #1 | | 6600 | 3/28 | 22 | 6.0 | 0.0 | 3.0 | 14 |
| Harrison Pass #2 | | 7400 | 3/28 | 31 | 8.1 | T | 4.3 | 14 |
| Hole-in-Mountain | | 7900 | 4/1 | 44 | 14.6 | 26.0 | - | 0 |
| Lamoille #1 | | 7100 | 3/31 | 36 | 11.5 | 5.4 | 10.1 | 14 |
| Lamoille #2 | | 7300 | 3/31 | 33 | 10.8 | 6.3 | 9.9 | 14 |
| Lamoille #3 | | 7700 | 3/31 | 42 | 12.6 | 10.8 | 13.4 | 14 |
| Lamoille #4 | | 8000 | 3/31 | 58 | 18.0 | 14.3 | 19.7 | 13 |
| Lamoille #5 | | 8700 | 3/31 | 76 | 25.0 | 21.2 | 29.2 | 14 |
| Ryan Ranch | | 5800 | 3/27 | 11 | 2.1 | 0.0 | 1.0 | 14 |
| Trout Creek, Lower | | 6900 | 3/30 | 10 | 3.8 | 0.2 | 2.7 | 11 |
| Trout Creek, Upper | | 8500 | 3/30 | 60 | 18.9 | 1.8 | 26.8 | 11 |

SNOW SURVEY & WATER SUPPLY FORECAST

NORTHEAST ELKO S.C.D., ELKO COUNTY, NEVADA



Water users in this area can expect only a poor to fair irrigation water supply this coming spring and summer.

Snow surveys in Northeast Elko Soil Conservation District indicate the mountain snowpack improved during March, but is still slightly below last year.

Salmon Falls Creek is forecast to flow about 53 percent of the 1943-57 normal during the irrigation season, which is less than last year. Flow of other streams in this area should be similar to Salmon Falls Creek.

Range conditions will be fair and could improve with good spring precipitation.

STORAGE (1,000 Ac. Ft.)

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|-----------|-----------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| | | | | |

NOTE: All normals based on 1943-1957 15 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

| FORECAST POINT | FORECAST | | MEASURED | |
|---|-----------|-----------|----------|--|
| | THIS YEAR | LAST YEAR | NORMAL | |
| 1. Salmon Falls Cr. near San Jacinto | | | | |
| March-Sept. | 47 | 64 | 88 | |
| March-July | 46 | 62 | 85 | |

SNOW

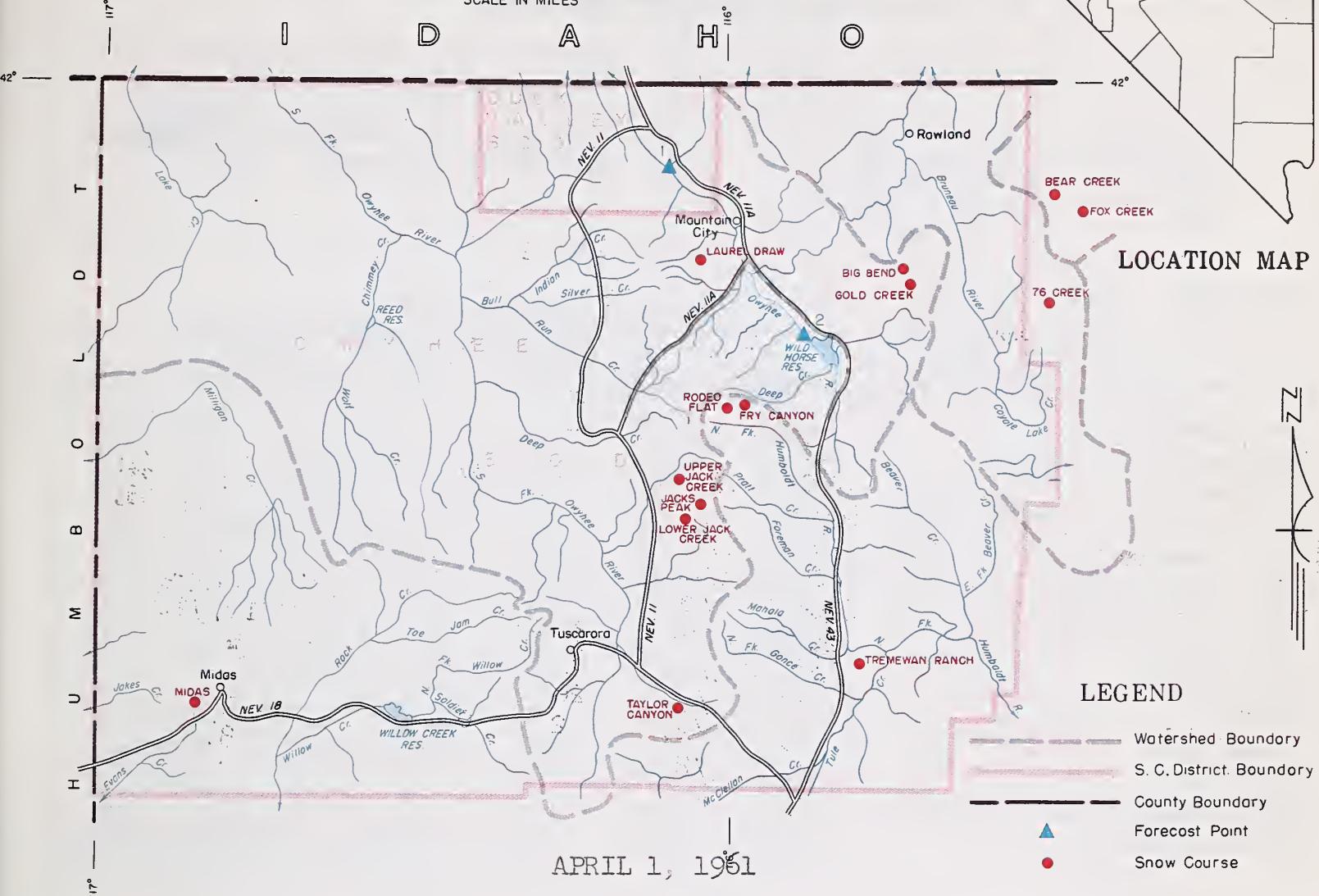
APRIL 1, 1961

| SNOW COURSE | CURRENT INFORMATION | | | PAST RECORD | | YEARS OF RECORD |
|---------------------------|---------------------|-----------|----------------|---------------------|------------------------|-----------------|
| | NAME | ELEVATION | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | |
| Goat Creek | 8800 | 3/27 | 57 | 14.6 | 15.8 | - |
| Hummingbird Springs | 8945 | 3/27 | 69 | 18.2 | 18.8 | - |
| Jakes Creek | 7000 | | Report delayed | T | - | 0 |
| Pole Creek Ranger Station | 8300 | 3/27 | 59 | 15.7 | 18.1 | - |

SNOW SURVEY & WATER SUPPLY FORECAST

DUCK VALLEY & Owyhee S.C.D.'s. ELKO COUNTY, NEVADA

5 0 5 10 15
SCALE IN MILES



Water users in Duck Valley and Owyhee SCD's can expect a poor-fair irrigation water supply this coming spring and summer. Excellent snowfall occurred in the Owyhee watershed during March with 150-250 percent of normal March snowfall being observed. These increases added to the poor mountain snowpack of 50 percent of average on March 1 resulted in a 70 percent of average April 1 snowpack.

Forecasts of the Owyhee River have been revised upward due to the above normal March snowfall but still remain much below normal. Owyhee near Gold Creek is forecast to flow 12,000 acre feet during April-July which is 44 percent of average (1943-57). During the same period Owyhee near Owyhee is anticipated to flow 40,000 acre feet or 47 percent of average.

Wild Horse Reservoir held 17,000 acre feet on April 1 which is 100 percent of average. Wild Horse is not expected to fill but will provide an irrigation season water supply very similar to last year's supply.

Mountain soils are fairly well wetted but still will require about 1 to 2 inches of snowmelt water to become fully wetted.

Range conditions are rated fair but good spring rains will be needed to sustain forage growth during the summer.

STORAGE (1,000 Ac. Ft.)

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|------------|-----------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| Wild Horse | 33 | 17 | 13 | 17 |

NOTE: All normals based on 1943-1957 15 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

| FORECAST POINT | FORECAST | MEASURED | |
|--|-----------|-----------|--------|
| | THIS YEAR | LAST YEAR | NORMAL |
| 1. Owyhee River near Owyhee 1/ | 40 | 43 | 86 |
| 2. Owyhee River near Gold Creek 1/ | 12 | 14 | 27 |
| 1/ Corrected for change in storage in Wild Horse Reservoir | | | |

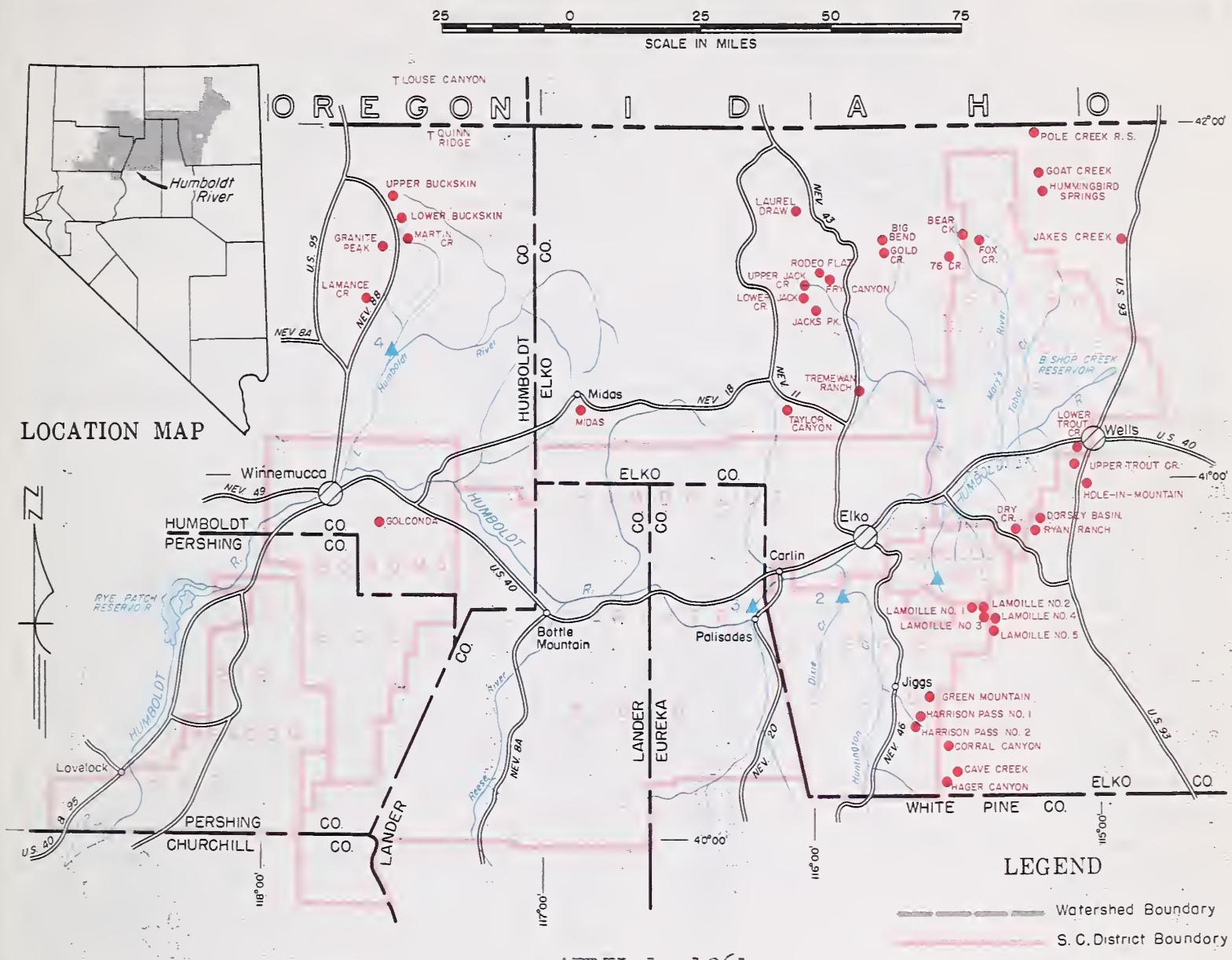
SNOW APRIL 1, 1961

| SNOW COURSE | CURRENT INFORMATION | | | PAST RECORD | | YEARS OF RECORD |
|-------------------|---------------------|-----------|----------------|---------------------|------------------------|-----------------|
| | NAME | ELEVATION | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | |
| Bear Creek | 7800 | 3/26 | 56 | 14.9 | 19.4 | 21.3 |
| Big Bend | 6700 | 3/28 | 26 | 7.3 | 7.6 | 10.5 |
| Fox Creek | 6800 | 3/26 | 20 | 6.4 | 8.3 | 8.3 |
| Fry Canyon | 6700 | 3/28 | 19 | 6.5 | 6.3 | 9.2 |
| Gold Creek | 6600 | 3/28 | 13 | 3.4 | 4.8 | 6.0 |
| Jack Creek, Lower | 6800 | 3/29 | 12 | 3.7 | 4.5 | 2.5 |
| Jack Creek, Upper | 7250 | 3/29 | 31 | 9.3 | 11.4 | 10.9 |
| Jacks Peak | 8420 | 3/29 | 83 | 25.5 | 23.5 | - |
| Laurel Draw | 6700 | 3/31 | 26 | 8.7 | 6.0 | - |
| Midas | 7200 | 3/29 | 2 | 0.8 | 0.6 | 1.7 |
| Rodeo Flat | 6800 | 3/28 | 18 | 5.2 | 6.5 | 8.7 |
| 76 Creek | 7100 | 3/27 | 35 | 9.3 | 11.0 | 12.0 |
| Taylor Canyon | 6200 | 3/29 | T | T | 4.7 | 3.5 |
| Tremewan Ranch | 5700 | 3/29 | T | T | 0.0 | 0.8 |

SNOW SURVEY & WATER SUPPLY FORECAST

HUMBOLDT RIVER

CHURCHILL, ELKO, EUREKA, HUMBOLDT, LANDER & PERSHING COUNTIES, NEVADA



APRIL 1, 1961

The spring-summer water supply outlook has improved for Humboldt River water users due to the heavy snowfall during March. The irrigation water supply outlook for Rye Patch water users remains critical even with the improved mountain snowpack.

Rye Patch holds only 13,000 acre feet which is 11 percent of average and 7 percent of capacity. The Humboldt at Palisade is forecast to flow 115,000 acre feet or 51 percent of average. There is a strong possibility that only about 30,000 acre feet will flow into Rye Patch during April-July.

April-July streamflow of South Fork Humboldt near Elko has been raised from last month's estimate of 35,000 acre feet to 52,000 acre feet or 70 percent of average. Likewise, Lamoille near Lamoille is now forecast to flow 22,000 acre feet during April-July or 79 percent of average. March snowfall in the Ruby Mountains was two to three times the March normal. However, these late March snows which brought the Ruby Mountain snowpack to near April 1 normal will probably not produce the snowmelt water that earlier more normal snowfall in January and February would have produced. Streamflow is expected to be fair on the upstream Humboldt tributaries in the spring but will probably drop off rapidly during midsummer.

Plate 12

STORAGE (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|-----------|-----------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| Rye Patch | 179 | 13 | 28 | 115 |

NOTE: All normals based on 1943-1957 15 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| FORECAST POINT | FORECAST | MEASURED | |
|--------------------------------------|-----------|-----------|--------|
| | THIS YEAR | LAST YEAR | NORMAL |
| 1. Lamoille Creek near Lamoille | 22 | 19 | 28 |
| 2. So. Fork Humboldt River near Elko | 52 | 28 | 74 |
| 3. Humboldt River at Palisade | 115 | 63 | 225 |
| 4. Martin Creek near Paradise Valley | 9 | 10 | 17 |

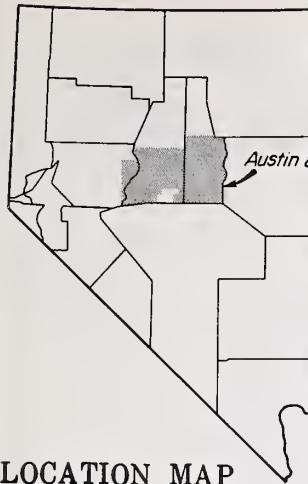
SNOW

APRIL 1, 1961

| SNOW COURSE | CURRENT INFORMATION | | | PAST RECORD | | YEARS OF RECORD |
|---------------------------|---------------------|---------------------|------------------------|------------------------|-----------|-----------------|
| | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | WATER CONTENT (Inches) | LAST YEAR | |
| Goat Creek | 8800 | 3/27 | 57 | 14.6 | 15.8 | - 3 |
| Hummingbird Springs | 8945 | 3/27 | 69 | 18.2 | 18.8 | - 3 |
| Jakes Creek | 7000 | | Report delayed | T | - | 0 |
| Pole Creek Ranger Station | 8330 | 3/27 | 58 | 15.7 | 18.1 | - 3 |
| Bear Creek | 7800 | 3/26 | 56 | 14.9 | 19.4 | 21.3 13 |
| Big Bend | 6700 | 3/28 | 26 | 7.3 | 7.6 | 10.5 15 |
| Fox Creek | 6800 | 3/26 | 20 | 6.4 | 8.3 | 8.3 13 |
| Fry Canyon | 6700 | 3/28 | 19 | 6.5 | 6.3 | 9.2 15 |
| Gold Creek | 6600 | 3/28 | 13 | 3.4 | 4.8 | 6.0 15 |
| Jack Creek, Lower | 6800 | 3/29 | 12 | 3.7 | 4.5 | 2.5 15 |
| Jack Creek, Upper | 7250 | 3/29 | 31 | 9.3 | 11.4 | 10.9 15 |
| Jacks Peak | 8420 | 3/29 | 83 | 25.5 | 23.5 | - 1 |
| Laurel Draw | 6700 | 3/31 | 26 | 8.7 | 6.0 | - 0 |
| Rodeo Flat | 6800 | 3/28 | 18 | 5.2 | 6.5 | 8.7 15 |
| 76 Creek | 7100 | 3/27 | 35 | 9.3 | 11.0 | 12.0 9 |
| Taylor Canyon | 6200 | 3/29 | T | T | 4.7 | 3.5 15 |
| Tremewan Ranch | 5700 | 3/29 | T | T | 0.0 | 0.8 15 |
| Cave Creek | 7500 | 3/30 | 46 | 15.5 | 12.5 | 15.6 13 |
| Corral Canyon | 8500 | 3/29 | 76 | 22.2 | 13.7 | 19.4 12 |
| Dorsey Basin | 8100 | 3/27 | 60 | 16.0 | 10.9 | 14.7 14 |
| Dry Creek | 6500 | 3/27 | 15 | 2.4 | T | 3.6 14 |
| Green Mountain | 8000 | 3/28 | 59 | 16.3 | 9.6 | 13.1 12 |
| Hager Canyon | 8000 | 3/30 | 57 | 18.1 | 15.4 | 21.9 13 |
| Harrison Pass #1 | 6600 | 3/28 | 22 | 6.0 | 0.0 | 3.0 14 |
| Harrison Pass #2 | 7400 | 3/28 | 31 | 8.1 | T | 4.3 14 |
| Hole-in-Mountain | 7900 | 4/1 | 44 | 14.6 | 26.0 | - 0 |
| Lamoille #1 | 7100 | 3/31 | 36 | 11.5 | 5.4 | 10.1 14 |
| Lamoille #2 | 7300 | 3/31 | 33 | 10.8 | 6.3 | 9.9 14 |
| Lamoille #3 | 7700 | 3/31 | 42 | 12.6 | 10.8 | 13.4 14 |
| Lamoille #4 | 8000 | 3/31 | 58 | 18.0 | 14.3 | 19.7 13 |
| Lamoille #5 | 8700 | 3/31 | 76 | 25.0 | 21.2 | 29.2 14 |
| Ryan Ranch | 5800 | 3/27 | 11 | 2.1 | 0.0 | 1.0 14 |
| Trout Creek, Lower | 6900 | 3/30 | 10 | 3.8 | 0.2 | 2.7 11 |
| Trout Creek, Upper | 8500 | 3/30 | 60 | 18.9 | 1.8 | 26.8 11 |
| Midas | 7200 | 3/29 | 2 | 0.8 | 0.6 | 1.7 13 |
| Golconda #2 | 6000 | 3/30 | 3 | 1.2 | 0.0 | - 0 |
| Buckskin, Lower | 6700 | 3/27 | 25 | 8.2 | 6.0 | 8.0 14 |
| Buckskin, Upper | 7200 | 3/27 | 35 | 11.6 | 9.9 | 9.0 14 |
| Granite Peak | 7800 | 3/27 | 32 | 8.4 | 10.8 | 11.3 14 |
| Lamance Creek | 6000 | 3/28 | 15 | 4.8 | 8.4 | 8.0 13 |
| Martin Creek | 6700 | 3/27 | 19 | 6.1 | 8.6 | 7.4 14 |

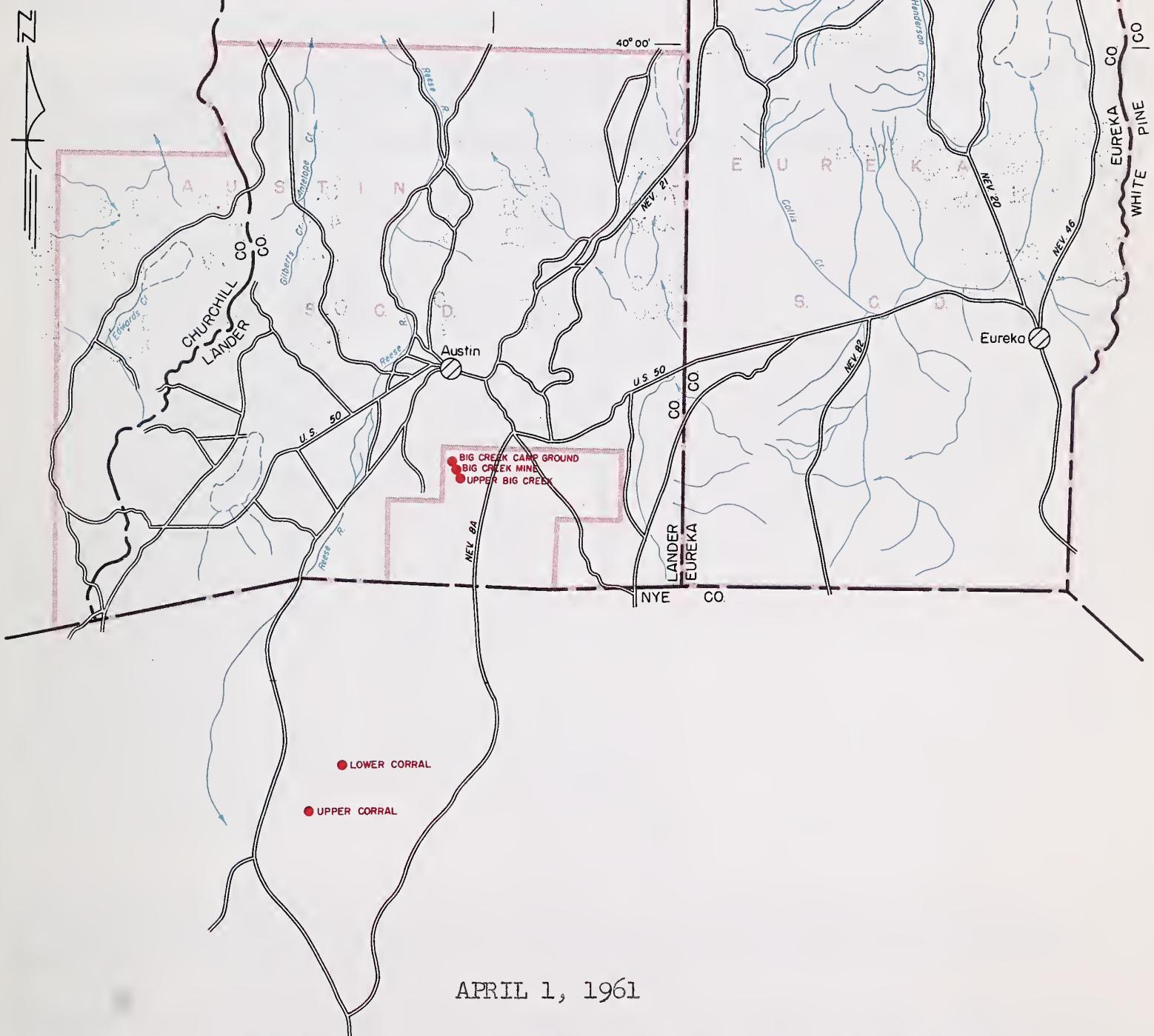
SNOW SURVEY & WATER SUPPLY FORECAST

AUSTIN & EUREKA S.C.D.'S., CHURCHILL, EUREKA
& LANDERS COUNTIES, NEVADA



Austin & Eureka S.C.D.'s.

LOCATION MAP



Snow surveys in the Austin Eureka area indicate the mountain snowpack is below normal. Only fair to poor runoff can be anticipated in this area.

The snowpack in the Toiyabe Range on Big Creek south of Austin is 61 percent of April 1, 1943-57 average. Fair runoff from this area is expected.

On the Upper Reese River the snowpack is much below normal and poor runoff is probable unless spring-summer precipitation is good.

STORAGE (1,000 Ac. Ft.)

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|-----------|--------------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| | | | | |

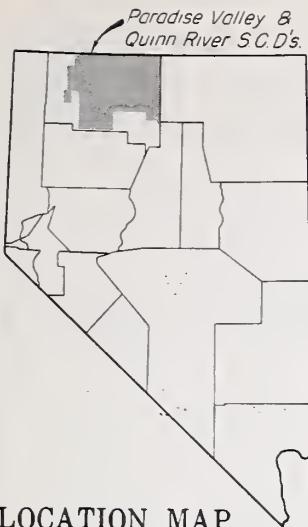
| FORECAST POINT | MEASURED | | |
|----------------|-----------|-----------|--------|
| | THIS YEAR | LAST YEAR | NORMAL |
| | | | |

NOTE: All normals based on 1943-1957 15 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

SNOW

APRIL 1, 1961

| SNOW COURSE | NAME | ELEVATION | CURRENT INFORMATION | | | PAST RECORD | | YEARS OF RECORD |
|-----------------------|------|-----------|---------------------|---------------------|------------------------|------------------------|-----------|-----------------|
| | | | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | WATER CONTENT (inches) | LAST YEAR | |
| Big Creek Camp Ground | | 6600 | 3/31 | 1 | 0.4 | 0.0 | 1.6 | 15 |
| Big Creek Mine | | 7600 | 3/31 | 14 | 4.5 | T | 3.2 | 13 |
| Upper Big Creek | | 8000 | 3/31 | 24 | 7.1 | 2.9 | 8.2 | 13 |
| Lower Corral | | 7500 | 4/1 | 0 | 0.0 | 0.0 | 1.6 | 14 |
| Upper Corral | | 8500 | 4/1 | 1 | 0.5 | 0.0 | 4.0 | 13 |



SNOW SURVEY & WATER SUPPLY FORECAST

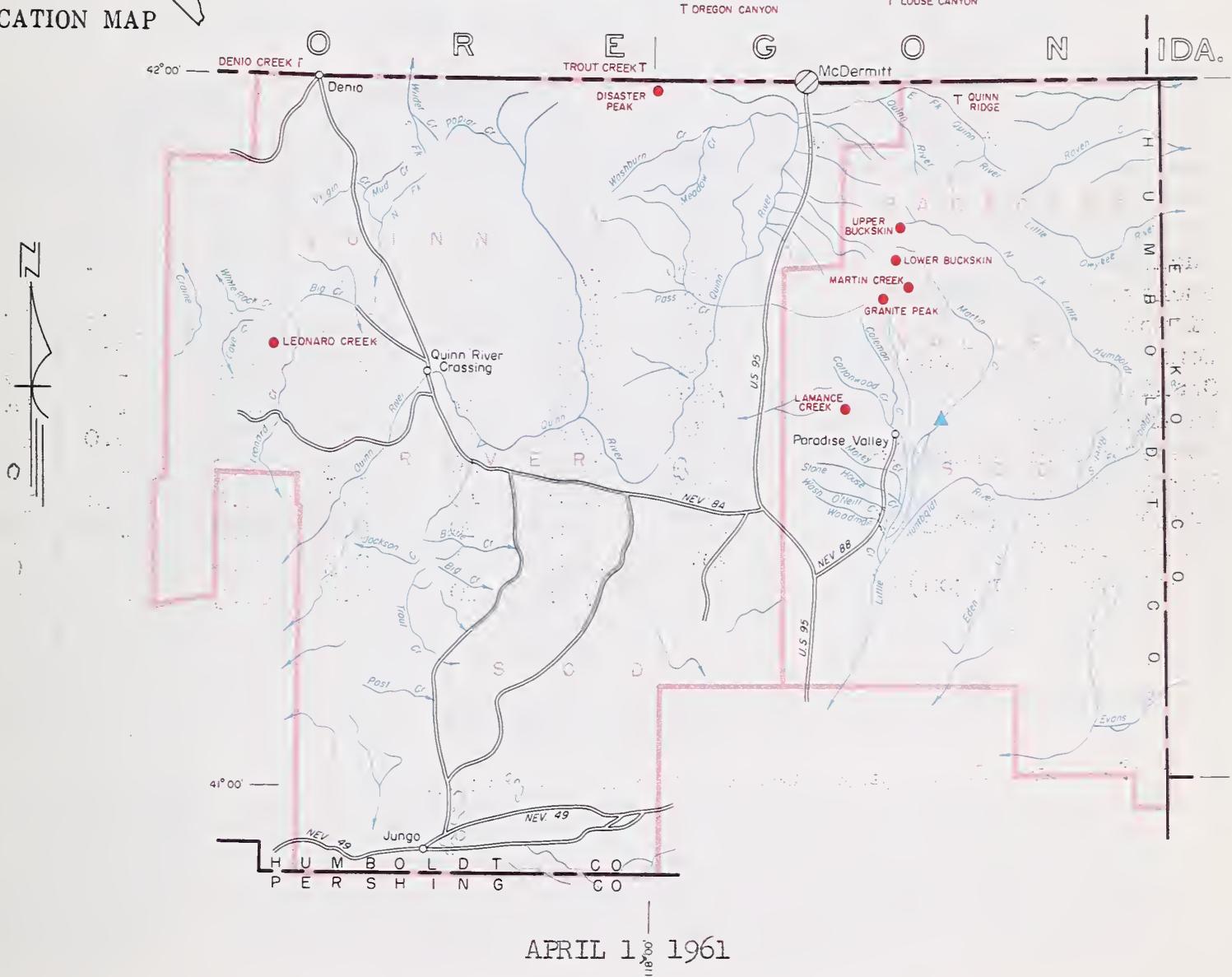
PARADISE VALLEY & QUINN RIVER S.C.D.'S., HUMBOLDT COUNTY, NEVADA

10 0 10 20
SCALE IN MILES

LEGEND

- Watershed Boundary
- S.C. District Boundary
- County Boundary
- Forecast Point
- Snow Course
- Aerial Snow Depth Gage

LOCATION MAP



Water users in Paradise Valley can expect a poor water supply this coming irrigation season with Martin Creek forecast to flow 9,000 acre feet during the April-July period, or 53 percent of average.

Snowpack in the Santa Rosas is below normal for this time of year. Fall rains and snowmelt at lower elevations have improved soil moisture conditions, which in turn will improve runoff from the mountain snowpack.

Other streams in the Santa Rosa Mountains can be anticipated to flow similar to Martin Creek.

Range conditions should be fair but good spring rainfall will be needed to sustain range forage growth.

STORAGE (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|-----------|-----------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| Rye Patch | 179 | 13 | 28 | 115 |

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| FORECAST POINT | FORECAST | MEASURED | |
|--------------------------------------|-----------|-----------|--------|
| | THIS YEAR | LAST YEAR | NORMAL |
| 1. Martin Creek near Paradise Valley | 9 | 10 | 17 |
| Humboldt River | 115 | 63 | 225 |

NOTE: All normals based on 1943-1957/5 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

SNOW

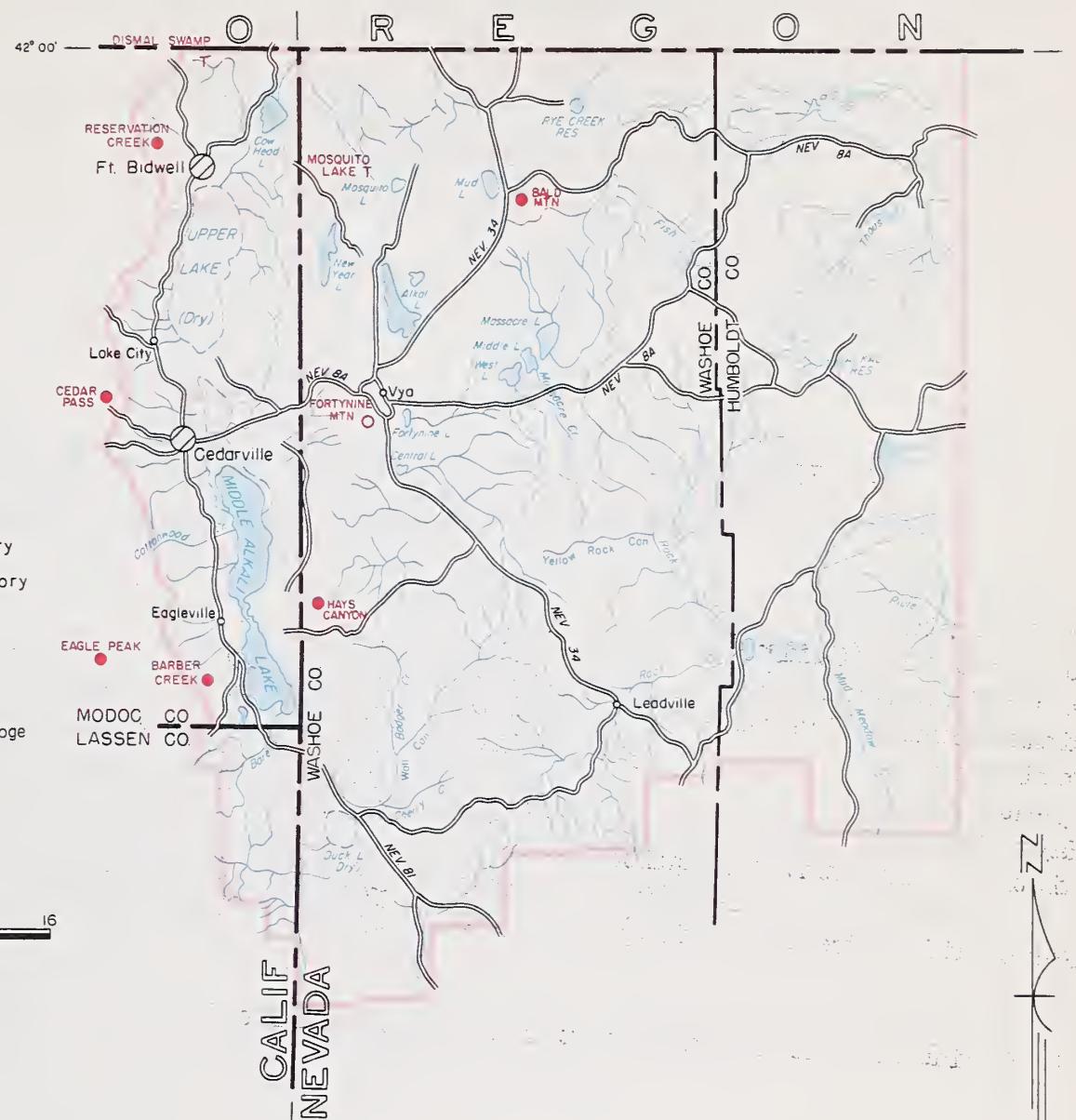
APRIL 1, 1961

| SNOW COURSE | NAME | ELEVATION | CURRENT INFORMATION | | | PAST RECORD | | YEARS OF RECORD |
|-------------------------|------|-----------|---------------------|---------------------|------------------------|------------------------|-----------|-----------------|
| | | | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | WATER CONTENT (Inches) | LAST YEAR | |
| Buckskin, Lower | | 6700 | 3/27 | 25 | 8.2 | 6.0 | 8.0 | 14 |
| Buckskin, Upper | | 7200 | 3/27 | 35 | 11.6 | 9.9 | 9.0 | 14 |
| Disaster Peak | | 6500 | 3/26 | 31 | 10.3 | 7.9 | 12.8 | 9 |
| Denio Creek (Oregon)* | | 6000 | 3/28 | 0 | 0.0 | 0.0 | - | 0 |
| Granite Peak | | 7800 | 3/27 | 32 | 8.4 | 10.8 | 11.3 | 14 |
| Lamance Creek | | 6000 | 3/28 | 15 | 4.8 | 8.4 | 8.0 | 13 |
| Louse Canyon (Oregon)* | | 6440 | 3/27 | 10 | 3.3 | 1.3 | - | 0 |
| Martin Creek | | 6700 | 3/27 | 19 | 6.1 | 8.6 | 7.4 | 14 |
| Oregon Canyon (Oregon)* | | 7240 | 3/27 | 20 | 6.6 | 5.2 | - | 0 |
| Quinn Ridge* | | 6300 | 3/27 | 1 | 0.3 | 0.0 | - | 0 |
| Trout Creek (Oregon)* | | 7800 | 3/27 | 20 | 6.6 | 10.3 | - | 0 |

* Aerial snow depth gage; water content estimated.

SNOW SURVEY & WATER SUPPLY FORECAST

VYA S.C.D., NEVADA and
SURPRISE VALLEY S.C.D., CALIFORNIA



APRIL 1, 1961

The water supply conditions in the Surprise Valley District during the coming spring and summer will be similar to or possibly slightly better than 1960. Less than normal streamflow off the east slopes of the Warner Mountains into Surprise Valley is anticipated. Spring rainfall and localized summer thunderstorm showers are important factors in the runoff pattern of the streams in this area.

The snowpack in Vya Soil Conservation District as represented by Bald Mtn, Hays Canyon and 49-Mtn. is about 50 percent of last year and below average. Water supply in this area this coming spring-summer will be much like 1959.

Precipitation for the period September through March at four precipitation stations in the area was as follows:

| | Actual | Normal |
|-------------|--------|--------|
| Ft. Bidwell | 8.76 | 11.73 |
| Cedarville | 7.06 | 9.28 |
| Vya | 6.50 | 6.67 |
| Sheldon | 5.96 | 7.32 |

STORAGE (1,000 Ac. Ft.)

APRIL - JULY RUNOFF (1,000 Ac. Ft.)

| RESERVOIR | USABLE CAPACITY | MEASURED (First of Month) | | |
|-----------|-----------------|---------------------------|-----------|--------|
| | | THIS YEAR | LAST YEAR | NORMAL |
| | | | | |

| FORECAST POINT | FORECAST | | | MEASURED | | |
|----------------|-----------|-----------|--------|----------|--|--|
| | THIS YEAR | LAST YEAR | NORMAL | | | |
| | | | | | | |

NOTE: All normals based on 1943-1957 15 year period. "Years of record" indicates number of years used in 1943-1957 period. The forecast period is from April 1 through July 31.

SNOW

APRIL 1, 1961

| SNOW COURSE | CURRENT INFORMATION | | | PAST RECORD | | YEARS OF RECORD | |
|------------------------------------|---------------------|-----------|----------------|---------------------|------------------------|-----------------|----|
| | NAME | ELEVATION | DATE OF SURVEY | SNOW DEPTH (Inches) | WATER CONTENT (Inches) | | |
| Bald Mountain | 6720 | 3/29 | 6 | 1.4 | 2.3 | 3.1 | 15 |
| Barber Creek (Calif.) | 6500 | 3/30 | 24 | 8.5 | 6.9 | - | 0 |
| Cedar Pass (Calif.) | 7100 | 3/29 | 55 | 17.4 | 12.7 | 18.4 | 15 |
| Dismal Swamp (Oregon)* | 7000 | 3/28 | 54 | 16.2 | 18.4 | - | 1 |
| Eagle Peak | 7200 | 3/28 | 48 | 13.1 | 12.1 | 17.9 | 15 |
| 49-Mtn. | 6000 | 3/31 | T | T | T | - | 0 |
| Hays Canyon | 6400 | 3/31 | T | T | 0.6 | - | 0 |
| Little Bally Mtn. (Mosquito Lake)* | 6000 | 3/28 | 6 | 1.4 | New Course | | |
| Reservation Creek (Calif.) | 5900 | 3/30 | 28 | 9.6 | 9.1 | - | 0 |

* Aerial snow depth gage; water content estimated

Agencies Cooperating in Collecting Data Contained in this Bulletin

FEDERAL

Soil Conservation Service
Forest Service
Geological Survey
Bureau of Reclamation
Fish and Wildlife Service
Army
Navy
Weather Bureau
Agricultural Research Service

STATE

Nevada Department of Conservation & Natural Resources
Division of Water Resources
Nevada State Forester-Firewarden
Nevada Cooperative Snow Surveys
Colorado River Commission of Nevada
California Cooperative Snow Surveys
California Department of Water Resources
Oregon Cooperative Snow Surveys
Nevada Association of Soil Conservation Districts

PRIVATE

Walker River Irrigation District
Amalgamated Sugar Company
Owyhee Project North Board of Control
Owyhee Project South Board of Control
Virginia City Water Company
Kennecott Copper Corporation
Squaw Valley Development Company
Pacific Gas & Electric Company
Nevada Irrigation District
Sierra Pacific Power Company
Washoe County Water Conservation District
Truckee-Carson Irrigation District
Pershing County Water Conservation District

Other organizations and individuals furnish valuable information for the snow survey reports. Their Cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
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*"The Conservation of Water begins
with the Snow Survey"*